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ABSTRACT

Higher education in Massachusetts is considered in relation to governance and student financial aid. Growth since 1960, enrollment projections, and changing financial realities are considered. Attention is directed to reorganization of public higher education, including the struggle to strike a reasonable balance between institutional needs for academic independence and state requirements for fiscal control/accountability. The analysis of state financial aid policy considers public/private competition, implications for student access/choice, and compatibility with federal assistance programs. It is recommended that financial aid responsibilities be separated from the Board of Higher Education, that a new Massachusetts Scholarship Commission be created, and that the delivery of all state-funded student aid programs be centralized in the new agency. Suggested broad objectives of Massachusetts' reorganization effort are: to maximize lay control over public higher education; obtain sufficient institutional independence from the governor and legislature to insure academic freedom and avoid the politics of immediacy; develop a comprehensive statewide planning and coordination capacity; and eliminate the rivalry between the Board of Higher Education and Secretary's office for the responsibility of statewide planning and coordination. (SW)

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HIGHER EDUCATION IN MASSACHUSETTS:
ISSUES IN THEIR CONTEXT

By

Richard Stafford and Larry Lustberg

Prepared for the Sloan Commission on
Government and Higher Education

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FORWARD

This report was written for the Sloan Commission on Government and Higher Education. It examines the two broad policy issues of governance and student financial aid. Being a working document, it is intended as input to the larger Commission research report.

The chapters concerning Massachusetts' political context and governance were written chiefly by Richard Stafford. The analytical sections concerning student financial aid were essentially the work of Larry Lustberg. Both authors collaborated in the paper's conceptualization and benefited from the constructive comments of Sloan Commission staff. As in most joint endeavors, both authors share responsibility for the work's shortcomings.

The views expressed and the conclusions drawn in this study are those of the authors only. They do not reflect the views of the Sloan Commission on Government and Higher Education.

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I. INTRODUCTION

Massachusetts has been in operation for a long time. Only two of its some 350 towns were incorporated in this century and only about two dozen since the Civil War. It also has a tradition of taking action first as its people confront problems before the rest of the nation. This heritage has produced a long list of American "firsts," including the first large-scale colonization, first organization for self-government, first frontier settlements, first widespread dependence on manufacturing and the first general shift to service industries.¹

Massachusetts has been in the business of higher education for a long time as well. In fact, the history of higher education in the United States began in Massachusetts when its General Court granted 400 Pounds for establishing Harvard College in 1636. The Bay State has produced "firsts" in education as well, including the first state high school, first private school, first state board of education, first state education commissioner, first compulsory school law, first mandatory school attendance law, first teacher training institution, first prohibition against school segregation, first graduate school of education, first vocational educational program, and the first statewide commercial credit program to finance student loans for higher education.²

In short, Massachusetts has a long tradition of leadership in higher education. It also remains somewhat unique among other states today. The academy, for example, represents a major industry for the state. The 65 colleges and universities in the Boston area alone amount to more than \$1.3 billion annual enterprise and employ more than 40,000 people.³ With only 0.2 percent of the nation's land and about three percent of its population, it ranks eighth nationally in terms of total college enrollments.

Because of the quality, diversity, and national reputation of its many private institutions, the state ranks first nationally in terms of percentage of students attending private colleges and universities. Thus, while only about one in four full-time students in the nation attends private institutions, more than half of the students in Massachusetts enroll in the private sector.

Higher education in Massachusetts, thus, is old, big and a somewhat unique enterprise. It is also a troubled business.

Many of the 93 private institutions face an uncertain economic future as they struggle to keep revenues abreast of operating expenses. Nearly all face the prospect of declining enrollments and dwindling external funding resources. Similarly, among the 30 public institutions, an uneasiness prevails as they feel the pinch of more stringent state fiscal policies, changing political priorities and the likelihood of fewer students in the decade ahead.

Policy Issues

These broad trends and institutional concerns have not been limited to Massachusetts. However, the analysis presented here will be. It will examine several key policy issues emerging in Massachusetts as its higher education institutions -- both public and private -- respond to this changing environment. Specifically, attention will be given to two broad sets of issues:

- Reorganization of public higher education, including the struggle to strike a reasonable balance between institutional needs for academic independence and state requirements for fiscal control/accountability; and

- State financial aid policy, including its relationship to public/private competition, implications for student access/choice, and compatibility with federal assistance programs.

Other significant issues in the state include such things as the search for a new mission for state colleges, impact of collective bargaining on governance decision-making, and the difficulty in maintaining academic quality within the context of declining resources. Each merits attention. However, given the limited time available and specific interests of the Sloan Commission, the governance issues of reorganization and state financial aid policy seem most salient. Moreover, there is current debate on these issues in the state, and the way they are resolved will likely have a significant long-term impact on Massachusetts higher education.

In terms of organization, the paper looks first at the context in which these issues are being considered. Three chapters are devoted to this. One sketches the rapid growth of Massachusetts' public higher education since 1960 and its implications. A second examines the changing demand for higher education resulting from demographic shifts, and the third notes the emerging financial plight of Massachusetts colleges and universities. Following this, the broad policy issues of reorganization and state financial aid policy will be considered in some depth. The analysis will consider results of previous studies as well as note alternative courses of action. Finally, it will put forward several recommendations for consideration.

Data for this analysis was drawn from existing publications and interviews conducted during the summer of 1978. Massachusetts publications reviewed included legislative bills, commission reports, budget documents, institutional analyses, and, as noted, previous consultant reports.

Those selected for interview included present and former state legislators, institutional leaders, statewide educational association representatives, gubernatorial representatives, and coordinating/governing board officials. In all, approximately 50 interviews were conducted.

Constraints

Since 1900, the General Court has initiated at least 36 studies concerning higher education in the Commonwealth. A consistent constraint to analysis has been the absence of reliable data. As an example, the report which served as the basis for reorganizing public higher education in 1965 voiced this concern as follows:

There has been extreme difficulty in obtaining thoroughly accurate data. One clear shortcoming of the Commonwealth and its educational institutions is the absence of standardized, reliable, valid and consistent information to document the past and to provide a basis for future development. While the data here presented... might seem to be a simple matter of record, it has been necessary to ferret out pieces of information from many sources and to make adjustments for reconciliation among comparable items.⁴

The situation today is much the same. There simply exists no reliable data base for statewide educational planning or decision-making. As one key official of the Massachusetts Postsecondary Education Commission put it recently, "We simply don't have the information we need to plan adequately, and don't trust a lot of it that we do have."

This work suffers from the same heritage. As will be seen, it draws upon data aggregated differently over time. It relies at times on secondary sources, and it has the misfortune of concerning political issues currently under discussion. The opinions noted are therefore subject to the politics of self-interest. Notwithstanding these limitations, however, the analysis does provide some background and insight into two major policy issues in Massachusetts, as well as a look at how emerging national forces are being played out in at least one setting.

II. PUBLIC HIGHER EDUCATION COMES OF AGE

Public higher education in Massachusetts is old, but it achieved maturity only after a prolonged youth. In a sense, its history can be divided into before and after 1960.

From its origins to 1960, public higher education consisted of a small land-grant university in Amherst, twelve state colleges and three technical institutes. Each languished in the shadow of the state's large, well-established private sector, a sector that included the likes of prestigious institutions such as Harvard, MIT, Amherst, Williams and others. Prior to 1960, even the University of Massachusetts, the state's flagship public institution, was characterized chiefly as a "cow college": an institution of last resort for the poor and/or those unable to gain admission to a private college or university. There was no system of public community colleges and only limited enrollments in the state college system. In short, while public higher education had already become a significant force in most states by the mid-twentieth century, such was not the case in Massachusetts. As late as 1950, the Commonwealth's public sector served less than 10,000 students (or only about 10 percent of total state enrollments) and enjoyed only modest public support.

However, beginning in the 1960's Massachusetts initiated a major effort to improve and expand its public system of higher education. Since then, some \$1 billion has been invested in facilities, including a new Boston campus and medical school for the University of Massachusetts, the development of 15 regional community colleges and two regional universities. In addition, annual state appropriations for public higher education during the last two decades have increased more than 16-fold. As a result of this massive investment, public higher education in Massachusetts today

does represent a major state resource and significant political force. It now enrolls some 98,000 students, or about half of the state's total enrollments; and for the first time in the Commonwealth's history, it is perceived as competing effectively with many private institutions for students.

Rapid Growth

If public higher education in Massachusetts was slow to develop prior to 1960, the dominant theme since then has been rapid growth. This is reflected in dramatic increases in (a) enrollments, (b) operating expenditures, and (c) capital investments.

As indicated in Table I, total enrollments in the public sector have expanded roughly six-fold since 1960. Among this group, the state's 15-campus community college system is demonstrating the most rapid development. From serving no students in 1960, it enrolls more than 28,000 full-time equivalent (FTE) students today. Other public sectors demonstrate a similar growth trend. Enrollments at the University of Massachusetts, for example, grew from approximately 6,000 in 1960 to more than 28,000 in 1977, or nearly a five-fold increase. For the state colleges, comparable figures are 7,207 and 30,064. Also during this period, two regional universities were created: New Bedford Technical Institute and Bradford Durfee Technical Institute combined to form Southeastern Massachusetts University (SMU); and Lowell State College and Lowell Technical Institute joined to form the University of Lowell. Together, their enrollments have grown from approximately 2,500 in 1960 to more than 11,000 in 1977.

TABLE I

PUBLIC HIGHER EDUCATION ENROLLMENTS¹
 BY FISCAL YEAR AND BY SECTOR
 SELECT YEARS 1960-1976

Fiscal Year	U.Mass.		State Colleges		Community Colleges		SMU ²		Lowell ³		Total	
	Head count	FTE	Head Count	FTE	Head Count	FTE	Head Count	FTE	Head Count	FTE	Head Count	FTE
1960	6,030	---	7,207	---	----	---	1,075	---	1,482	---	15,794	---
1965	9,520	---	10,840	---	3,650	---	1,275	---	2,450	---	27,735	---
1967	12,835	---	15,792	---	7,930	---	2,250	---	4,120	---	42,927	---
1970	20,835	---	21,828	---	15,165	---	3,000	---	5,060	---	65,888	---
1973	26,729	---	27,148	---	21,126	---	3,780	---	6,670	---	85,453	---
1976	---	29,146	---	31,078	---	27,305	---	4,634	---	6,997	---	99,160
1977	---	28,678	---	30,064	---	28,098	---	4,838	---	6,869	---	97,747

1. Enrollment figures prior to FY 1973 are taken from the Governor's budget recommendation of that year and reflect student headcount. Enrollment figures for FY 1973 reflect actual full-time equivalent student enrollment in the fall semester. Enrollment figures for FY 1976 and FY 1977 reflect actual average full-time equivalent student enrollment in both semesters.
2. For ease of comparison past enrollment figures for New Bedford Technical Institute and Bradford Durfee Technical Institute are summed under Southeastern Massachusetts.
3. Lowell State College and Lowell Technical Institute are summed under the University of Lowell.

Source: "Working Paper on Public Higher Education Planning," Office of the Secretary for Educational Affairs, Commonwealth of Massachusetts, August 17, 1977, pp. 4 and 11.

Fiscal Support

The growth of appropriations for construction of facilities and operating expenditures show the extent to which Massachusetts has increased its fiscal support for public higher education. For example, a recent study completed by the Academy for Educational Development found that between 1968 and 1972 alone, the Commonwealth increased its total plant size by more than 61 percent, or from about 13 million square feet to approximately 22 million square feet.⁵ To accomplish this it spent more than \$679 million. As indicated in Table II, this represents about 72 percent of the total state general capital appropriations budget for the period under consideration.

TABLE II
STATE GENERAL CAPITAL¹ APPROPRIATIONS IN MASSACHUSETTS
COMPARED WITH CAPITAL BUDGET FOR HIGHER EDUCATION
1966-1973

<u>Fiscal Year</u>	<u>State General Capital Appropriations</u>	<u>Higher Education Capital Appropriations</u>	<u>Higher Education as % of Total Capital Approp.</u>
1965-66	\$63,000,000	\$40,000,000 ²	63%
1966-67	67,000,000	45,000,000	67
1967-68	94,000,000	63,000,000	67
1968-69	107,000,000	74,000,000	69
1969-70	110,000,000	82,000,000 ³	75
1970-71	295,000,000	253,000,000	86
1971-72	<u>206,000,000</u>	<u>121,000,000</u>	<u>59</u>
Total	\$943,000,000	\$679,000,000	72%

1. Does not include appropriations for highway construction, acquisition of recreational land, and a number of smaller items.
2. Does not include Chapter 847-65 \$1,750,000 for University of Massachusetts Medical School.
3. Does not include Chapter 898-69 \$50,000,000 for University of Massachusetts at Boston.

Note: Because of rounding, figures recorded as totals may not equal the sum of components.

Source: Academy for Educational Development, Higher Education in Massachusetts: A New Look at Some Major Policy Issues, Washington, D.C., June 1973, p. 140.

Most of this money has gone toward the construction of regional community college campuses, the Boston campus of the University of Massachusetts and its Medical School at Worcester. The decision-making process for selecting the locations for these campuses and the resources allocated to them has been highly political. Constructing a geopolitical map for the community college system, for example, would show that the location of individual campuses is strongly related to either the Ways and Means Committee or Education Committee. Similarly, the decision to locate the new medical school at Worcester resulted from a compromise of political forces competing for the school, rather than any statewide educational planning effort; and the relatively swift decision to build a Boston campus came about due to the strong support of then Senate President Morris Donahue, who sponsored the authorizing legislation and pushed it through the Senate House in a matter of days.

Beyond making these major capital investments, the legislature supported higher education by increasing annual appropriations for the state system some 16-fold since 1960, as shown in Table III.

University of Massachusetts appropriations surged from \$9.4 million to \$118 million; state colleges, \$5.1 million to \$67 million; and community colleges from virtually nothing to \$60 million. In all, appropriations have soared from \$17.1 million to \$271 million.

The budgetary process in Massachusetts, unlike many states, is not explicitly enrollment driven, that is, appropriation levels, though related to enrollments, are not established through specific formulae as they are in states such as California. Rather, it is very much one of direct negotiation between individual campuses and the state legislature. This is not to say that a formal budgetary process does not exist in Massachusetts.

TABLE III
STATE APPROPRIATIONS TO HIGHER EDUCATION
INSTITUTIONS FISCAL YEAR 1960-1978

Fiscal Year	State Colleges	U. Mass.	S.M.U. ¹	Lowell ²	Community Colleges	Total Appropriations
1960	\$ 5,145,630	\$ 9,425,723	\$ 819,892	\$ 1,699,693	----	\$ 17,088,938
1965	11,160,658	17,881,600	1,527,307	3,060,810	\$ 2,211,181	35,721,556
1970	28,526,711	45,837,885	3,952,360	6,194,853	14,178,240	98,690,049
1975 ³	54,824,958	96,548,626	10,451,757	11,871,290	41,628,290	215,324,923
1976	54,528,204	100,080,097	9,866,298	15,803,768	39,552,308	219,800,675
1977	58,681,416	108,075,025	10,803,695	16,668,278	41,816,239	236,044,653
1978	63,678,913	110,313,603	11,866,500	18,098,653	46,577,818	250,535,487
1979	67,149,834	118,332,115	13,765,916	20,015,528	51,914,677	271,178,070

1. For ease of comparison, past appropriations to New Bedford Technical Institute and Bradford Durfee Technical Institute are summed under SMU for FY 1960.
2. Past appropriations to Lowell State College and Lowell Technical Institute are summed under the University of Lowell, which was not established until FY 1976.
3. Figures for FY 1975 are somewhat unrepresentative of other years in that they include deficiency appropriations not contained in other years.

Source: Executive Budget Recommendations (House 1) for Fiscal Years 1960-1978. Appropriations represent amount originally authorized by General Court (except as noted) for operating expenses.

It does. It includes individual campuses generating appropriation requests up through respective statewide governing boards to the Board of Higher Education, and ultimately to both the governor (through the Secretary of Educational Affairs) and the Legislature. Along the way modifications of budget requests are noted, and pro forma hearings held. However, it appears that actual budgetary decisions are not made at this procedural level but rather through informal and direct negotiations between individual campuses and key state legislators. As in the case of selecting new campus sites during the growth of the 1960's and early 1970's, annual appropriation decisions reflect both the political expertise of individual campus administrators and the clout of their respective state legislators.

Larger Market Share

An outgrowth of this development is the increased share of the student market by the public sector today. As can be seen in Table IV, the percentage of students enrolled in publicly supported Massachusetts institutions has increased from 11 percent in 1955 to about half (46 percent) in 1976. This rate of growth, which has been well above the national average, has also created a situation where public higher education today represents a significant resource and political force in the Commonwealth, though the system is still overshadowed by the prestigious private institutions.

The growth in market share for public institutions is not from their private counterparts enrolling fewer students. Rather, it has stemmed from the ability and willingness of public institutions to absorb most of the marginal growth in student enrollments during the last two decades: a time when there were more 18-24 year-olds and higher rates of participation in higher education among this traditional college age group. Put

another way, most private institutions continued to expand enrollments during this period, but simply not as fast as the public sector (see Appendix D).

TABLE IV
PERCENTAGE OF HIGHER EDUCATION ENROLLMENTS
IN PUBLIC AND PRIVATE INSTITUTIONS
SELECTED YEARS, 1955-1976

Fall of Year	Massachusetts		U.S. as a Whole	
	Public	Private	Public	Private
1955	11%	89%	56%	44%
1960	16	84	59	41
1965	25	75	66	34
1970	38	62	73	27
1972	42	58	76	24
1976	46	54	76	24

Source: Academy for Educational Development, Higher Education in Massachusetts: A New Look at Some Major Policy Issues, Washington, D.C., June 1978, p. 157; 1976 figures for Massachusetts taken from Massachusetts Postsecondary Education Commission, Student Need and Demand for Postsecondary Education in Massachusetts, April 1978, p. 28; 1976 U.S. figures taken from David W. Breneman and Chester E. Finn, Jr. (editors), Public Policy and Higher Education, The Brookings Institution, Washington, D.C., 1978, p. 19.

To some extent, continued growth of the private sector during the last two decades can be attributed to continued attractiveness of its well known institutions to out-of-state students. That is, even though public state institutions were absorbing most of the marginal growth, many of the Commonwealth's private institutions were continuing to attract (a) their share of the state's top students, and (b) large numbers of out-of-state students. Even today, for example, nearly half (41 percent) of the students enrolled in Massachusetts private colleges and universities originate from other states. In contrast, nearly all (92 percent) attending public institutions are Massachusetts residents (see Table V).

TABLE V ¹

GEOGRAPHIC ORIGIN OF STUDENTS ENROLLED IN
MASSACHUSETTS INSTITUTIONS
1975

	Mass Private Institutions	Mass Public Institutions	All Mass Institutions
Massachusetts	122,093 (58.9%)	147,375 ² (92.2%)	269,468 (73.4%)
Other New England States	20,975 (10.1%)	5,397 (3.4%)	26,372 (7.2%)
Other U.S.	64,210 (30.0%)	7,105 (4.4%)	71,315 (19.4%)
Total Out of State	85,185 (41.1%)	12,502 (7.8%)	97,687 (26.6%)

1. Student enrollment figures used here are headcount numbers, not full-time equivalents.

Source: Massachusetts Postsecondary Education Commission, Student Need and Demand for Postsecondary Education in Massachusetts, April 1978, p. 22.

Forces for Growth

Why did Massachusetts take so long to develop public higher education and what happened in the late 1950's and 1960's to unlock the state's treasury? Relevant factors include such things as:

- A perception in the Northeast that a priori private higher education is better than public;
- Private institutions were well entrenched in Massachusetts prior to the development of public higher education; and because of their overall quality, the political leadership saw no need for establishing a strong public sector; and
- Prior to the 1960's the politico/economic leadership concerned with public education in the Commonwealth focused chiefly on elementary and secondary education, viewing these schools as "feeders" to private colleges and universities.

One thoughtful analysis of why public higher education did not develop as rapidly in New England as elsewhere in the nation has been provided by Christopher Jencks and David Riesman in The Academic Revolution. Although their comments were not limited to Massachusetts, the analysis presented appears entirely applicable. Said Jencks and Riesman:

Our own interpretation is that religious and economic divisions ran deeper in the Northeast than elsewhere. Eastern legislators were therefore unable to unite around any one version of higher education that would serve their state's diverse interest groups. On the one side was usually the Irish Catholic clergy, convinced that cheap public colleges would lure immigrant children into perdition. On the other side were the Anglo-Saxon "first families," many of whom had attended Protestant colleges and most of whom saw no reason why such colleges could not provide for the future just as they had for the past. In states where both these groups were powerful, the extension of the common-school principle to higher education proved difficult, and publicly controlled colleges got very little support.⁶

Massachusetts educational leaders such as Father Michael Walsh, former Boston College president and member of several key state commissions during the last two decades, lend support to the "lack-of-political-support" argument. In his words, "It's not that there was a conscious effort to hold back the development of public institutions; I think it was just more a case of apathy than antagonism among the political leadership and private institutions."⁷

The issue of which forces came together in the 1960's to gather the necessary political support for public higher education is somewhat more complex. It involves the interweaving of personalities, imponderables, changing state house politics, shifting demography and attitudes toward education. An early "personality" who contributed to development was Jean P. Mather, president of the University of Massachusetts from 1954 to 1960. During this period, he initiated a series of public speeches about the Commonwealth, chastising the legislature for depriving the university of sufficient funds to meet its needs. As former Massachusetts State Senate President Kevin Harrington puts it:

He was dead right on raising the issue here. The trouble was he completely lacked any sense of diplomacy about it. In fact, he was abrasive. He would tell audiences 'you could put the collective brains of the Massachusetts legislators on a cuff link.' With speeches like that he didn't win much favor with the 8 legislators who were responsible for funding his programs.

Although Mather lost his effectiveness and ultimately left, his efforts began a process of reconsideration of the Commonwealth's lack of commitment to public higher education. This was followed in 1957 by the imponderable of "Sputnik," which raised serious doubts about the adequacy of the nation's leadership in science. Because of the role of MIT and Harvard in this national effort, the psychological shockwave that Sputnik generated among the political and academic communities throughout

the nation was felt even more keenly in Massachusetts. This too raised the political consciousness in the state for a stronger commitment to higher education generally.

Then, in the summer of 1961, the BOSTON GLOBE ran a series of articles concerning the problems of public education in Massachusetts. This series led to the General Court creating a special study commission. Called the "Willis-Harrington Commission," this group was chartered in 1962 to analyze the state's system of public education and make recommendations for its development. Benjamin C. Willis, then general superintendent of schools for Chicago, served as chief consultant to the commission. Mr. Harrington was at that time junior state senator. As a former teacher, he was interested in education and promoting the cause of public education. The commission also included a variety of other prominent academic and political leaders.

The commission's research effort represented the most comprehensive analysis of public education in the Commonwealth since the time of Horace Mann. It was well funded and staffed. When it issued its report in 1965, which among other things called for a major reorganization and state commitment to public higher education, the legislature responded favorably. Many of its reorganization recommendations were enacted.

The favorable response can be traced to several factors. First, key figures in the legislature at that time strongly supported the goals of public higher education. For example, the Senate President at that time was Morris Donahue. Coming from Western Massachusetts, he brought a "populist" ideology to the Senate leadership and named their education advocates to key legislative positions, e.g. James Kelley to Ways and Means Committee. Similarly, the House of Representative leadership was then in the hands of David Bartley. Because of his interest in public education, these bills were nurtured through the Lower House.

Second, the legislature itself was significantly different by the 1960's than in previous years. It was controlled for the first time by Western "populists," by Democrats - whose party has traditionally supported goals consistent with public higher education. Democratic control began in 1948 with the establishment of a majority in the Lower House but it did not become operational until 1958. That year, Mr. Donahue was elected majority leader of the senate and the first Democrat to hold that position in the Commonwealth's history.

"Prior to 1958," as Mr. Donahue explains, "with the GOP control and its traditional, conservative, private orientation, there simply was not much political support for the public colleges. When we got control in 1958, it was the first time in this century that there were enough people in the legislature sympathetic with the issue to do anything about it."⁹

"Baby Boom"

In addition to this new legislative perspective, fundamental shifts in the state's demography contributed to the need for developing greater capacity in the public system. By the 1960's cohorts of the post-war "baby boom" had reached the traditional college age and created a period of excess demand, a demand of sufficient magnitude that Massachusetts' private institutions were unable and/or unwilling to absorb. Not only were there more 18-24 year-olds in the Commonwealth, but also more who wanted to attend college. Perhaps Mr. Harrington's comments summarize the situation best:

Like the rest of the nation, by the sixties the impact of a higher birth rate had hit Massachusetts. At the same time, we had convinced people that the road to success was higher education. People would sacrifice nearly anything to go to college. Then, too, students

were pouring into college to avoid being drafted for the Vietnam war. You take these factors, plus the fact that then tuition costs in the private colleges were beginning to spiral up, and that created considerable pressure and support here for expanding our public system.¹⁰

Putting all these factors together, then, what one finds is that public higher education has only recently come of age. At the same time, however, this development is one factor generating a series of issues relating to governance and financial aid policy. The governance-related issues, which will be discussed in some depth later, relate to a concern that the existing decision-making structure is ill-suited for retrenchment needs of the 1980's. That is, while the existing structure may have met state decision-making needs in a period of growth, it is inadequate for responding to the more stringent fiscal realities of the next decade. Similarly, the emergence of a strong, heavily subsidized state system of higher education has arrived at a time when private higher education in the state is becoming more dependent on student tuition fees for survival. With the spectre of fewer students next decade and spiraling tuition fees among private institutions, all but the most oversubscribed private institutions are concerned about their long-term financial integrity. And among the lesser known private institutions there is an emerging concern about their ability to compete for students with the state's low cost, heavily subsidized public colleges and universities. As a result, they are focusing their attention on state and federal financial aid policies as an indirect source of public subsidy.

III. DEMOGRAPHY AND PROJECTED ENROLLMENT DECLINES

Traditionally, most people attend college between the ages of 18 and 24. Consequently, the size of this age group serves as a major indicator for projecting college enrollments. Just as the expansion of this cohort contributed to the rapid growth of enrollments during the last two decades, its projected shrinkage after 1981 presents an unsettling future for higher education -- both nationally and in Massachusetts.

A look at the nation's demography shows that the rapid growth of the 18-24 year-old age group is about over. As indicated in Table VI the total number of 18 year-olds and 18-21 year-olds will reach their peak size next year, numbering 4.29 million and 17.16 million respectively. In 1981, the 18-24 year-olds cohort will then reach its maximum size of 29.51 million and start a period of prolonged decline. That decline will last until 1995 and see the size of this age group shrink by more than 6 million, or by about 21 percent.

In Massachusetts, the decline has already begun. The 18-24 year-old cohort reached its peak two years ago at 771,000 and is anticipated to decline by about 150,000 (or 25 percent) by 1995.

TABLE VI

ESTIMATED SIZE OF PARTICULAR AGE GROUPS IN UNITED STATES
SELECT YEARS 1978-2000
 (in Millions)

<u>Year</u>	<u>Age Groups</u>		
	<u>18</u>	<u>18-21</u>	<u>18-24</u>
1978	4.23	17.11	28.93
1979	4.29	17.16	29.30
1981	4.15	17.02	29.51
1984	3.70	15.99	28.48
1987	3.57	14.52	26.45
1990	3.43	14.51	25.15
1995	3.26	13.00	23.22
2000	3.91	14.99	24.65

Source: U.S. Bureau of Census, Current Population Reports,
 Series P-25, No. 704, pp. 37-60

Enrollment Projections

Reflecting these demographic trends, enrollment projections for the Commonwealth suggest that the number of students could diminish by as much as 25 percent in the next two decades.

The most detailed and optimistic analysis is printed by the Massachusetts Board of Higher Education (BHE). As indicated in Table VII, the BHE estimates that overall enrollments will continue to expand in both the public and private sectors through to 1982-83 and then decline through to 1990. In the peak year, full-time enrollments are estimated to total some 249,000 then shrink by more than 25,000 (or about 10 percent) by 1990. In addition, the BHE predicts that public and private institutions will bear the brunt of the reduction equally. That is, enrollments will decline by the same percentage (roughly 10 percent) throughout the retrenchment period.

The prediction of the Secretary of Educational Affairs, Paul Parks, offers an even more bleak scenario. In a recent "Working Paper" on educational planning, Mr. Parks notes that about 80 percent of full-time students in Massachusetts are in the 18-24 year-old cohort. This being so, he says that:

Because the pool from which these students are drawn will shrink by about 25 percent between 1980 and 1995, it is reasonable to predict that full-time enrollment in this age bracket will decline by the same percentage, barring major changes in participation rates. A 25 percent decline would translate to a loss of 47,500 full-time undergraduate students.¹¹

Writing in 1978 it is not clear which forecast will prove correct. Both rest on the questionable assumption that both public and private sectors will decline in equal proportions. Given the expanding tuition

TABLE VII

ENROLLMENT PROJECTIONS FOR FULL-TIME UNDERGRADUATE
STUDENTS IN MASSACHUSETTS INSTITUTIONS
1978-79 to 1989-90

	<u>1978-79</u>	<u>1980-81</u>	<u>1982-83</u>	<u>1985-86</u>	<u>1989-90</u>	<u>Difference between 1982-83 and 1990</u>
<u>Public</u>	99,007	100,798	104,825	96,144	93,985	-10,840 (10.3%)
Two-year	27,325	27,819	28,930	26,534	25,938	- 2,992 (10.3%)
Four-year	35,452	36,094	37,536	34,428	33,655	- 3,881 (10.3%)
Universities	36,230	36,885	38,359	35,182	34,392	- 3,967 (10.3%)
<u>Private</u>	136,017	138,477	144,008	132,057	129,116	-14,892 (10.3%)
Two-year	15,072	15,345	15,957	14,637	14,307	- 1,650 (10.3%)
Four-year	52,627	53,579	55,719	51,107	49,957	- 5,762 (10.3%)
Universities	68,318	69,553	72,332	66,343	64,852	- 7,480 (10.3%)
<u>Total</u>	235,024	239,775	248,883	228,231	223,101	-25,732 (10.3%)

Source: Board of Higher Education, Commonwealth of Massachusetts, Enrollment Projections for the Commonwealth of Massachusetts through 1990, 1975, pp. 4-7.

gap between the public and private sectors, it seems more likely that privates will suffer a disproportionate enrollment drop. In addition, neither projection appears to take into adequate consideration the net impact of student migration. It is for reasons such as these that the state is now contracting with a private consultant to develop a revised enrollment projection. What we can say, however, is that the information available today indicates that overall enrollments in Massachusetts colleges and universities will decline somewhere between 7 and 13 percent next decade and by as much as 25 percent by 1995.

Significant Implications

A protracted enrollment decline will likely have significant implications for both public and private sectors. For public institutions, smaller enrollments could weaken their long-term ability to sustain state appropriations levels -- particularly in an era of increasing state fiscal stringency. For some, such as state colleges, it could result in a modification of their traditional mission and/or a threat to their institutional survival. As noted, state appropriations are not, in reality, tied directly to student enrollments; they are not divorced from them either. If enrollments do in fact drop by as much as 25 percent, it will become increasingly more difficult -- and perhaps impossible -- for state legislators to defend even current appropriation levels from other competing state interests, e.g. health, welfare. Then, too, the decline could result in a blurring of missions among several public sectors. Already, for example, the state college system has begun to lower its academic standards to the point where many campuses are competing with community colleges on virtually an "open admissions" basis. The most extreme example of this trend is Boston State College, where

the most recent figures show nearly two-thirds (63 percent) of the 1976 freshman class having Scholastic Aptitude Test verbal scores below 400. For the entire state college system the comparable figure is 44 percent, or nearly half.

Despite the prospect of long-term enrollment declines and their concomitant policy implications, it appears that Massachusetts public institutions have not entertained seriously the notion of retrenchment. None of the practitioners interviewed, for example, seriously considered the closing of public institutions, or were actively developing comprehensive retrenchment plans. The strategy that is emerging among these institutions appears to include:

- Increasing efforts to recruit part-time students among adults to make up for declining traditional college age students;
- Strengthening vocational, or career, orientation of curricula in an effort to make programs more attractive to potential students; and
- Institutional leaders devoting more time and energy to legislative and governing board relations.

One clear exception to this pattern is the Secretary of Educational Affairs, who has begun to raise the issue of closing public institutions. As noted in his 1977 "Working Paper," Mr. Parks estimates that public institutions in the next two decades will lose 19,000 full-time students. This represents the equivalent to the combined student bodies of six state colleges or nine community colleges. As a result, he puts the matter bluntly:

Unless countered by dramatic increases in college attendance rates the 18-24 year-old population, or by equally dramatic increases in full-time or part-time undergraduate attendance rates by the growing adult population, the loss of this many students could force the Commonwealth to close down or consolidate several of its institutions.¹²

In addition to concern at the executive level, as will be indicated in a later chapter, the changing demographic context has contributed to the state legislature creating a special commission to study the reorganization of public higher education in the Commonwealth.

Finally, for Massachusetts' private institutions, the prospect of fewer students in the future represents a potentially even more serious problem; for most of these institutions are becoming increasingly dependent upon student tuition fees to meet their revenue needs. Moreover, their increased reliance on tuition is occurring at a time when the trend is toward fewer potential students. As a consequence, many private institutions in the Commonwealth face an uncertain economic future. It is to this issue which the paper now turns.

IV. CHANGING FINANCIAL REALITIES

Higher education institutions in Massachusetts, as in other states, are finding their financial situation becoming less secure. For publicly funded institutions, this is due to the changing state political priorities and new fiscal limitations. Among private colleges and universities, the change reflects a greater reliance on tuition as external funding resources (e.g. research funds, government contracts, charitable contributions) decline. For both sectors, this emerging financial environment is another source of increased apprehension and concern.

Throughout the halcyon growth years of the last decade, the state's economy was able to keep pace with the rising social demand for higher education. However, by the mid-1970's Massachusetts' fiscal and political situation had changed. The state's economy was in serious trouble, and it had a new governor, Michael Dukakis.

Budgetary Crisis

"Massachusetts today faces the most serious budgetary crisis in memory -- the largest current budget deficit of any state in the nation and an economic base that is stagnant and eroding," said the new governor in 1975.¹³ The state then faced a budget deficit amounting to some \$350 million and an unemployment rate of 9 percent (nearly 3 percent above the national average). In addition, it appeared that the total state revenues for Fiscal Year 1976 would be some \$125 million less than originally anticipated.

Mr. Dukakis developed a strategy of reducing expenditures where possible. With more than one-third of the state budget fixed by law (e.g. aid to cities, pensions for public employees, state bond payments and other mandated programs), those activities which were subject to change

would be examined closely. As he told the legislature that year, "I believe that you and I must make a Herculean effort to reduce expenditures; to eliminate waste; to reexamine old programs and priorities; and to do everything humanly possible to match expenditures with revenue."¹⁴

For public higher education this meant the era of steady state funding and fiscal stringency had begun. Although some growth has occurred in the public sector since Fiscal Year 1975, its priority vis-à-vis other state funded programs has declined. One indication is the slippage of state higher education appropriations as a percentage of the total state budget. For example, from Fiscal Years 1960 to 1975, appropriations for operating expenditures grew from 4 percent of the state budget to a high of 7 percent. However, since Fiscal Year 1975, appropriations have dropped to 5 percent (see Table VIII).

Similarly, a national comparison of state appropriations reported recently in the Chronicle of Higher Education¹⁵ indicates the extent of Massachusetts' "boom-bust" phenomenon. While the Bay State ranked eighth in terms of growth in expenditures per capita for higher education over the ten-year period 1967-77, it ranked only 39th over the 1975-77 two-year change. And in the most recent year analyzed, Fiscal Year 1977-78, only two states appropriated less than Massachusetts (see Appendix D).

Lasting Effect

Since 1975, the state's weak economy has forced a broad framework of fiscal restraint in budget decision-making. The financial crisis Governor Dukakis confronted in Fiscal Year 1976 was real and has produced a lasting effect. Despite the job freeze he put on all new state hiring that year and efforts at budget reductions, the state ultimately was forced to borrow some \$535 million to meet its continuing obligations.¹⁶

TABLE VIII
ANNUAL STATE APPROPRIATIONS FOR PUBLIC HIGHER
EDUCATIONAL INSTITUTIONS
SELECT FISCAL YEARS
1960-1979

<u>Fiscal Year</u>	<u>Total Higher Education Appropriations (in millions)</u>	<u>Percentage of State Budget</u>
1960	\$ 17.1	4%
1965	35.8	6
1970	98.7	5
1975	215.3	7
1976	219.8	6
1977	236.0	6
1978	250.5	6
1979	271.2	5

Source: Governor's Budget Requests (House 1), Fiscal Years 1960-79. Appropriations represent amounts originally authorized by General Court for annual operating expenses.

Today, though Massachusetts no longer faces a budget deficit, the economy and political mind-set remains one of "Proposition 13" frugality.

Critics of Mr. Dukakis' education policy blame him directly for the low priority given to higher education today. "Look," explains one key administrator in the public sector, "Dukakis is a product of the private system. He attended private schools and understandably has a bias towards private education. But beyond that, he doesn't place a very high priority on education generally." Supporters of the Governor suggest that he is simply responding to fiscal realities and the changing needs of the state. As a result, he has had to divert state dollars to such things as health

and related social services. Despite the motivations of the Governor, or the merits of his actions, many in the academic community do not perceive him as being particularly responsive to their needs or interest.

In addition to the chief executive, the legislature today no longer finds higher education in vogue. In the words of Mr. Harrington:

It's no longer the sexy issue it was in the 1960's. It used to be a legislator could get (newspaper) headlines by doing this or that for education. Today, it's in vogue to talk about the dangers of LNG, solar energy or child abuse. Education today has lost its appeal as an issue.¹⁷

In general, public systems of higher education across the country are finding it more difficult to obtain state resources as they must compete with other agencies for the public dollar. Perhaps what is unique to the Commonwealth is that its "boom-bust" cycle appears to be more exaggerated (i.e. expanded at a more rapid rate during the 1960's and contracted more swiftly) than in other states.

Financial Plight

The first signs of private higher education's financial plight began to appear in the latter part of the 1960's and early 1970's. Indices of this include a decline in net operating revenues, increased dependency on tuition for operating revenues and substantial deferred maintenance. For some, this has resulted in forced closures or reorganizations.

In 1969, private institutions, through their state lobby group "Association of Independent Colleges and Universities of Massachusetts" (AICUM), called for the state to fund a study of their financial situation. Then Governor Francis A. Sargent responded by appointing a special study commission. Called the "Select Committee for the Study of Financial Problems of Private Institutions of Higher Education in the Commonwealth of Massachusetts," the group found, as anticipated, a series

of negative trends. Said the 1970 report:

Projections of revenues and expenditures developed during the study show that the private institutions of higher education will incur increasing deficits in a few years unless new and substantial sources of revenue become available. If no action is taken to counter the projected deficits, the private colleges and universities will have increasing difficulty sustaining the current level of enrollments and maintaining their reputation for excellence -- both of which have contributed so importantly to higher education in Massachusetts over the years. And, of more serious consequence, continuing financial deficits may even call into question the future existence of a number of private institutions.¹⁸

The analysis presented in this section will use the framework established by the 1970 study. It includes both parts of original 1970 data, as well as the most recent information available. This procedure was adopted because the 1970 study represents the most recent, authoritative financial analysis of private higher education in the state. A strong word of caution should be noted here, however. Although the data presented will show that negative trends identified in 1970 have continued to worsen, the figures offered represent only one rough approximation of the overall financial condition of Massachusetts' private higher education. The data used is suffering from several limitations in a number of ways, including:

- Not all private institutions were included in the original 1970 survey sample or the current update;
- Comparable accounting techniques were not used by all reporting institutions; and
- Institutions sampled may differ in their respective managerial financial strategies and therefore manipulate current operating funds differently.

Despite these drawbacks, however, the approach is not without value. Since the same institutions were sampled over time (except as noted), it is likely that these potential sources of error would be systematic over time. Therefore, although the data is not as precise as one might like,

it does serve to identify and assess the development of several broad trends.

Net Operating Funds

An examination of operating revenues and expenditures over time, for example, shows a clear trend of declining net operating funds (operating revenues minus operating expenditures). As shown in Table XI, net operating funds amounted to some \$29 million, in 1965-66. Three years later the comparable figure was down to \$19 million, and by 1977-78 operational expenditures were exceeding operational revenues by \$27 million. Similarly, net operating funds as a percentage of operating expenditures demonstrates a steady decline from 5.1 percent in 1965-66 to -2.7 percent in 1977-78.

TABLE IX

OPERATING REVENUES AND EXPENDITURES
FOR MASSACHUSETTS PRIVATE HIGHER EDUCATION INSTITUTIONS
1965-66 THROUGH 1977-78
(in millions)

	<u>1965-66</u>	<u>1968-69</u>	<u>1977-78</u>
Operating revenues	\$ 596	\$ 792	\$ 971
Operating expenditures	567	723	998
Net operating funds	29	19	-27
Net operating funds as % of operating expenditures	5.1%	2.5%	-2.7%

Source: Select Committee for the Study of Financial Problems of Private Institutions of Higher Education in the Commonwealth of Massachusetts, Financial Problems of Massachusetts Private Higher Education, January 1970, p. 1-8 (data for years 1965-66 and 1968-69); Board of Higher Education, Commonwealth of Massachusetts, "Institutional Profiles -- 1977," (data for 1977-78). Ten institutions which were included in the 1965-66 and 1968-69 figures were not included in the 1977-78 data due to closings or data not reported.

These aggregate statistics mask many differences among the private sector. To take a closer look, Massachusetts' private institutions can be divided into six categories (see Appendix for details):

Group I: Two-year institutions

Group II: Specialized colleges

Group III: Non-specialized colleges, lower expenditures per student

Group IV: Non-specialized colleges, higher expenditures per student

Group V: Universities except Harvard University and Massachusetts Institute of Technology

Group VI: Harvard University and Massachusetts Institute of Technology

Table IX breaks out net operating funds as a percentage of operating expenditures by each of these groups and over time. As indicated, Groups I and III show the most rapid change. The first dropped from 10 percent in 1965-66 to -6 percent in 1977-78 and the other from 18.9 percent to -2 percent. Similarly, while in 1965-66 no group had a negative cash flow, by 1977-78 all but one group did. In addition, the number of individual institutions experiencing annual deficits in net operating funds has grown from 7 to 25 during the years noted. This amounts to a five-fold increase since the base year of 1965-66.

What does all this add up to? Most simply, it suggests that most institutions in the private sector today are not generating sufficient revenue in a given year to meet their annual operational expenses. As a consequence they are having to meet continuing financial obligations through a variety of means, including borrowing, deferring capital expenditures and maintenance. Moreover, the situation is significantly worse today than in previous years.

TABLE X
NET OPERATING FUNDS AS A PERCENTAGE OF
OPERATING EXPENDITURES BY GROUP
FOR MASSACHUSETTS PRIVATE HIGHER EDUCATION INSTITUTIONS
1965-66 THROUGH 1977-78

	<u>1965-66</u>	<u>1968-69</u>	<u>1977-78</u>
Group I	10.0%	3.9%	-6.0%
Group II	11.0	3.8	-1.0
Group III	18.9	12.9	-2.0
Group IV	0.7	-2.4	1.0
Group V	7.2	1.3	-4.0
Group VI	<u>3.5</u>	<u>2.8</u>	<u>-3.0</u>
Total	5.1	2.5	-2.7

Source: Select Committee for the Study of Financial Problems of Private Institutions of Higher Education in the Commonwealth of Massachusetts, Financial Problems of Massachusetts Private Higher Education, January 1970, p. 1-12 (years 1965-66 and 1968-69); Massachusetts Board of Higher Education, "Institutional Profiles -- 1977," (year 1977-78). Ten institutions which were included in the 1965-66 and 1968-69 sample were not included in the 1977-78 data due to closings or data not reported.

Tuition Dependency

As noted, enrollment is central to the financial health of most private institutions. In Massachusetts today, the degree to which these institutions depend upon tuition as a source of revenue (i.e. tuition dependency) varies widely: from a low of 25 percent for Group VI (Harvard and M.I.T.) to a high of 93 percent for Group I (two-year colleges). Most financial analyses of private institutions exclude Harvard and M.I.T. because of their unique situation, i.e. unusually well endowed, able to attract a disproportionate amount of federal research dollars, natural applicant pool and highly selective admissions procedures. Excluding Group VI, the level of tuition dependency among Massachusetts institutions is approximately 69 percent for 1977, the most recent year for which there

TABLE XI

TUITION DEPENDENCY AMONG PRIVATE
MASSACHUSETTS INSTITUTIONS BY GROUPS, 1977
 (in millions)

Group	I	II	III	IV	V	VI
Tuition and fees	\$ 16.9	\$ 30.4	\$ 56.9	\$ 71.6	\$ 208.6	\$ 101.2
Total revenues	18.2	35.5	66.2	122.7	316.1	412.0
Tuition and fees as % of total revenues	.93%	.86%	.85%	.58%	.66%	.25%

Source: Board of Higher Education, Commonwealth of Massachusetts, "Institution Profiles -- 1977," undated. Data does not include ten institutions incorporated in the Financial Problems of Massachusetts Private Higher Education (1970) study due to closings or data not reported.

is data available. In other words, tuition fees generated about 69 percent of the annual income among the institutions represented in Groups I-IV. If Harvard and M.I.T. were included the figure would drop to 50 percent.

Closings

A final index for measuring financial stress in the private sector can be found in the number of institutions forced to close in recent years. BHE records show that since 1970 at least 12 institutions have shut down for financial reasons. This group includes:

- Eight two-year colleges;
- Three four-year, religiously affiliated institutions; and
- One four-year, non-religiously affiliated institution.

All of these were private with the exception of one municipal junior college.

To date, private two-year colleges have experienced the most number of closings. Although BHE records are incomplete, many failing institutions in this category have identified the development of the Commonwealth's low cost, public community college system as a significant factor. As one junior college representative told the BHE upon closing after 77 years of operation:

A number of factors brought about our closing, the principle one being our inability to compete with the heavily subsidized state institutions. In addition, our enrollment gradually shrunk from 600 to a projected enrollment for the 1973-74 academic year of 275, which would have created a deficit far beyond the ability of this small institution to carry. I am sure you are aware of the crisis facing private education, and its solution is academic at this time for our institution.¹⁹

Among the religiously affiliated, four-year colleges closing, knowledgeable observers attribute their problems to such things as declining enrollments, resulting from changing attitudes, and the development of co-educational religious colleges.

Context

What this brief review suggests, then, is that higher education in Massachusetts is in a state of transition. For publicly funded institutions, this is manifested in the smaller percentage of the state budget today, as well as the emergence of a period of stringency and changing political priorities. Among the privates, there is a clear trend of declining net operating funds and high tuition dependency, both occurring at a time when enrollments are expected to decline. In summary, it is in this context -- the recent emergence of a significant public sector, the spectre of declining enrollments, and the weakening financial position of both sectors -- that the issues of reorganization of public higher education and state financial aid policy are being considered.

V. REORGANIZATION OF PUBLIC HIGHER EDUCATION

The Carnegie Commission on Higher Education defines governance as the "structures and processes of decision-making."²⁰ In Massachusetts, despite a major reorganization of public higher education in 1965, the process has remained the same: individual institutions dealing directly with the legislature for appropriations. The result is an absence of any systematic, coherent public policy. As one recent analysis put it, "It is an oversimplification to speak of the Commonwealth's policy for higher education, for there is no closely integrated or well articulated body of policy."²¹

Current Structure

The existing governance structure was established by the "Willis-Harrington Act of 1965." This act organized public higher education into five sectors, each with its own governing board. These sectors include:

- University of Massachusetts
- University of Lowell
- Southeastern Massachusetts University
- State College System
- Community College System

The Governor appoints members of the governing boards of these sectors, which number 26 for the University of Massachusetts; 18, University of Lowell; 16, Southeastern Massachusetts University; 11, State College System, and 17 for the Community College System. These lay boards, similar to those in other states, have the responsibility for establishing policy guidelines for their respective institutions, e.g. tuition fees,

academic programming, personnel issues. The lengths of trustee appointments vary from sector to sector, the longest term being seven years for University of Massachusetts' Trustees. For the most part, appointees are prominent community or business leaders whose political ideologies resemble the governor's.

In addition to these systems, the 1965 act created the BHE, state-wide coordinating agency for higher education. The first of its kind in Massachusetts, it has a board of trustees consisting of 12 lay members. Seven are appointed directly by the governor, and the remaining five are segmental representatives (i.e., trustees of sector boards elected by their respective colleagues). The purpose of this board, according to its authorizing legislation, is to:

Support, facilitate, and delineate functions and programs for public institutions of higher education in the Commonwealth and segments of such institutions, to allocate to them the responsibility and autonomy to discharge such functions and programs, and to plan and develop efficient and effective coordination among them; provided, however, that the determination of individual courses within a general program of study shall be the sole responsibility of each public institution of higher education.²²

To implement this broad goal the agency has a variety of statutory powers, including:

- Approval of new academic degrees/programs for public institutions and private institutions not constitutionally chartered;
- Certification of private institutions seeking degree granting authority in Massachusetts;
- Review annual budget requests of public institutions and making recommendations to the legislature;
- Administer state scholarship programs;
- Collect and maintain data for statewide planning.²³

In addition to these agencies, other key elements in the policy-making process include the Governor, legislature, and Secretary of Educational Affairs. As in many states, the Governor's chief powers in the area of higher education include appointing of members of the public boards of trustees and advisory committees and making budget recommendations to the legislature. As for the General Court, it establishes, through its Committees on Education and Ways and Means, the levels of appropriations as well as the overall education policy guidelines.

Catalysts for Change

Several factors have contributed to the development of the reorganization issue. The BHE, for example, has simply failed as a statewide coordinating agency. In addition, the creation of a cabinet level position for education in 1969 established a competing agency for leadership in higher education planning. The combination of these factors, plus the perceived changing needs of the state, has provoked the need for reorganization as a chief governance issue.

The state's inability to rationalize education policy making process is not new. In fact, this aspect was a major factor for the creation of the BHE in 1965. The "Willis-Harrington Commission," for example, described the policy making process of its day as "unplanned and uncoordinated," resulting in "disorder and confusion."²⁴ The state Department of Education then served as the state's chief coordinating agency. However, as the Commission's report noted:

The state Department of Education was given neither power nor means to make decisions about the coordinated interests of the state's collegiate institutions, and the latter gradually won independence. The result has been to intensify long-standing

institutional ties with the legislature as a substitute for appropriate executive decisions...The detailed record... makes obvious the mutual need of the General Court and of the institutions to²⁵ set up machinery for orderly and coherent working relationships.

A look at the organizational structure in effect then (see Appendix H) shows a crazy-quilt pattern with the state colleges coming under the direct control of the department and other segmental boards operating autonomously. "What we had then," explains former commission chairman Harrington, "was a whole series of bureaus and boards with the state colleges getting about as much attention as the school lunch program."²⁶ Operationally, governance decisions were being made on an ad hoc basis, generally involving direct -- formal and informal -- negotiations between institutional representatives and the legislature. "During those years," he adds, "the legislature exercised virtually complete control. None of the segments had fiscal autonomy. If a state college president needed to add an assistant professor in the middle of the year, he would have to come down to the legislature to negotiate directly with the Ways and Means Committee chairman."²⁷

Thomas Wojkowski, former state representative and Vice Chairman of the "Willis-Harrington Commission," also describes the operational milieu of the legislature during those growth years. "All of us on the committee," he says, "saw our job as pumping millions and millions of dollars into higher education to keep up with the demand. What we felt we needed was some sort of strong statewide board to do the planning, coordination, review the various institutional budgets and make only one budget presentation to the Ways and Means Committee. We saw the BHE as responding to that need."²⁸

Structural Weaknesses

From its beginning, however, the BHE has suffered from structural weaknesses, limited powers, inadequate funding, and less than robust political leadership. Structurally, segmental representation on the board has limited its ability and creditability as an objective, dispassionate coordinating agency. Segmental representatives, though laymen, are elected to the BHE by their respective boards and, as such, have vested interests in statewide policy determinations. This has resulted frequently in academic program approval decisions being based either on "logrolling" principles, as was the case during the era of growth; or, as is beginning to occur now, segmental representatives opposing the program development of others in the hopes of retaining their own student market portion. For a future that is, at best, "steady-state" for public higher education and at worst, which is more likely, a period of protracted contraction, the ability of the BHE's board to make decisions based upon statewide educational needs - rather than vested institutional interests - is being called seriously into question.

A second factor for the BHE's ineffectiveness stems from its limited powers. In effect, the board is mandated the responsibility of providing statewide coordination and planning, but it lacks sufficient statutory powers to implement its decisions. For example, it lacks direct control over segmental budgets. Its authority does not extend beyond reviewing annual appropriation requests from the five public segments and making budget recommendations to the governor and legislature. Similarly, although the BHE must approve segmental requests for the development of new degrees and programs, it cannot terminate a program

without concurrence of the concerned governing board. Given the development of increased cutbacks, the board's limited powers in these areas seriously handicap its ability to provide statewide coordination. Put most simply, the board's clout depends, in effect, on the amount of support it can muster up for its position among the segmental boards, legislature and other key actors. To date, that has not been much.

A third limitation concerns the BHE's inadequate funding. Since its inception, the agency has not enjoyed the financial support necessary to meet its broad mandate. Every recent major study of the Commonwealth's policy-making process has raised funding as an issue and called attention to its implications. For example, a wide ranging policy study conducted by the Academy for Educational Development in 1973 concluded that:

(T)he Commonwealth has made inadequate provision for data collection and analysis, planning, and budgeting which make it difficult for the state to manage its higher education enterprise effectively.

In addition the Commonwealth has not developed adequate mechanisms for coordination among the segments of public higher education or between the public and private sector.

These deficiencies are the result in part of the General Court's failure to appropriate sufficient funds to support the work of a central planning staff. The result: decisions have been made on an ad hoc basis depending on the pressures of the moment, and overall statewide policy with respect to the future direction and expansion of higher education has been unclear. 29

Specifically, the BHE has been staffed far below levels authorized by the legislature. The extent to which this has been the case is reflected in the agency's most recent budget analysis. Said the 1978 report:

The Board of Higher Education is presently functioning with staffing support of 26 positions though it has been authorized 40 positions; the Board is staffed at a little over one-half persons necessary to fulfill the Board's mandates as set down by the legislature. The inevitable reality of the Board's

insufficient staffing support is that certain of the Board's statutory functions are being neglected. For example, the Board is required by law to perform a long range 'master planning' effort for higher education in the Commonwealth, and presently no planning is being conducted because no planning staff can be hired to perform this function.³⁰

In addition to planning limitations, the board has been unable at times to hire a full-time budget analyst due to inadequate funds; and on at least one occasion, it has completely failed to produce budget recommendations as mandated.

Vigorously Opposed

These financial woes, in part, stem from the absence of any true constituency for the agency. Its creation was vigorously opposed by the public sectors in 1965 for they did not want any state agency between them and the legislature. At that time, each segment was in a period of rapid expansion, developing new programs and obtaining appropriations successfully from the legislature. The prospect, then, of a strong new coordinating agency to limit their growth or exercise control over their respective budgets and programs was not -- and is not today -- viewed favorably by the public institutions. Ultimately, strong lobbying of the legislature by these interests weakened the statutory powers granted to the BHE. Still today, these interests do not view the BHE as their advocate to the legislature, but rather as an agency that represents no other interests.

This problem is compounded by the BHE's cycle of poor past results producing inadequate appropriations, which, in turn, leads to inadequate personnel levels and future poor results. The Secretary of Educational Affairs Office, which exercises budgetary influence over the BHE, has in fact reached a policy decision to oppose the agency's personnel

expansion efforts because of this. As one key aide to the Secretary put it recently, "We're not going to solve the BHE's problem by putting more good money in after the bad."

Finally, the agency has not enjoyed strong political leadership over the years. "Historically, the early chancellors never really emerged as the leading spokesmen for public higher education," as one BHE representative notes. "They were either unwilling or unable to take the bull by the horn, or fight to make the BHE a premier agency. Because of this leadership vacuum, the President of the University of Massachusetts emerged as the chief spokesman for public higher education in the state; and the BHE has never recovered."

In general, then, the BHE is perceived today as failing to produce the results desired by the "Willis-Harrington Commission." It began weak. It has remained weak. During an era of growth and prosperity for Massachusetts' public higher education, its limitations were endured. However, in today's changing political and economic climate its existence is being called into question. Critics believe it to be simply incapable of responding to the tough retrenchment decisions ahead.

Cabinet Reorganization

The reorganization of the executive branch of state government in 1969 served as a second major catalyst for the reorganization issue. This reorganization created a governor's cabinet which included a Secretary of Educational Affairs with responsibilities ambiguous and somewhat similar to those of the BHE. Hence, the seeds were planted for an agency to compete with the BHE for the coordination of public higher education.

Under provisions of the "Executive Reorganization Act," the Secretary of Educational Affairs exercises jurisdiction over the Department of Education and state agencies within it. This includes the BHE. In terms of statutory duties, the authorizing legislation says that the Secretary shall:

- Conduct comprehensive planning with respect to the functions of said office and coordinate the activities and programs of the state agencies therein.
- Conduct studies of the operations of said agencies with a view to effecting improvements in administrative organization, procedures and practices, and to promote economy, efficiency, and avoid useless labor and expenses in said agencies.
- From time to time recommend to the governor such changes as he shall deem desirable in the laws relating to the organization, structure, efficiency or administrative functions, services, procedures, and practices of any such agencies.
- Review and act upon budgetary and other financial matters concerning said agencies....³¹

In addition, the Secretary has the assigned and implied duty to "provide educational leadership statewide consistent with legal authority."

In short, this language suggests the Secretary should play a major leadership role in higher education. However, a subsequent caveat in the authorizing legislation injects some confusion and ambiguity. This important section reads:

Nothing in this section shall be construed as conferring any powers or imposing any duties upon the Secretary with respect to the foregoing agencies except as expressly provided by law.³³

The net result, then, is that while the Secretary is obliged to provide statewide educational planning and leadership -- a role comparable to that of the BHE -- his statutory powers are minimal. For the most part whatever clout the Secretary does enjoy depends upon his relationship with the Governor, which impacts on public higher education through influencing appointments to segmental governing boards and budget recommendations.

Rivalry

Beginning with the election of Mr. Dukakis and the appointment of Paul Parks, a new round of rivalry developed between the BHE and the Secretary's office. This is due to the Secretary's perception of the BHE as being ineffective and the Governor's desire to exert stronger control over the educational system. From the perspective of the Secretary, who appears to represent the Governor on this issue, stronger leadership is required to make the state's system of higher education more responsive to changing fiscal and educational needs. Hence, the battle for leadership power began.

The struggle to date has been waged on several fronts. The Secretary, for example, does exercise influence over the BHE's budget and hiring practices. As a result, the BHE has not been able to obtain sufficient funds to meet its staffing requirements. "What they're doing," says one BHE official, "is slowly strangling us through attrition." The number of positions in the BHE has therefore declined during recent years to a low of 26 positions. A second area has been an apparent

breakdown in communications between the two agencies, particularly in the area of BHE board appointments. This has raised suspicion among BHE personnel regarding the motivations and agenda of newly appointed trustees. Since the Chancellor and key deputies serve at the pleasure of the BHE board, over which the Secretary exercises some control through the gubernatorial appointment process, the level of trust and morale in the BHE is low.

The issue was further inflamed when, in 1976, the Governor transferred the "1202 Commission" from the BHE to the Secretary's office. This commission consisted of a subgroup of BHE board members and was supplemented as required to accommodate federal guidelines. While at the BHE, the commission played a relatively minor role, meeting only the federally mandated requirements for insuring the statewide coordination of certain federally funded projects, e.g. HEA, Title I.

However, once this responsibility was transferred to the Secretary's office, the Commission quickly became a vehicle for expanding Mr. Parks' area of responsibility and power. Though the commission controls only a small budget, less than \$500,000 in federal funds, its real value lies in providing a rationale for the Secretary to play a larger role in statewide educational planning and coordination; and with this is the justification for additional staff.

Since moving to the Secretary's office, personnel appointed to the original "1202 Commission" have been changed. It is being staffed by the Secretary's office, and it has a new name: Massachusetts Post-secondary Education Commission. Moreover, it has assumed a broad set of responsibilities and statewide planning activities that duplicate the BHE's. Current activities, for example, include the development

of new enrollment projections for the state, institutional planning processes and working towards the establishment of uniform accounting procedures among the various public segments. The net result of these activities has been only to confuse further the fixing of responsibility for overall statewide educational planning and coordination.

Reorganization Efforts

It is against this backdrop that by 1976 sufficient concern had been generated among some in the academic community and legislature that an effort was mounted to reorganize public higher education. The key actors in this effort were Dr. Robert Wood, then President of the University of Massachusetts, and Kevin Harrington. Mr. Harrington was then Senate President and an old crony of Dr. Wood. Both were concerned that unless something was done, the Governor would be successful in taking over public higher education. As Dr. Wood explains:

At that point, my board was beginning to change with the new Dukakis appointees, and the same thing was happening across the state. These new 'process liberals' were questioning everything we were attempting to do and, in general, making it difficult to carry on the university's business. If you put this together with what was going on with the Governor's efforts to put a lid on appropriations, and with Parks, it was clear to us that we had to make a move before Dukakis got control over the whole system.³⁴

The reorganization proposal that they developed was to create a new "super board" to replace the BHE. This board would be stronger than the BHE in that it would exercise direct control over all public higher education, including authority over budgeting, program and related activities.

In an effort to gain political support for the concept, Senator Harrington held a series of hearings around the state. However, the

effort failed to produce a favorable consensus. Both the Governor and Secretary Parks were not invited to participate and clearly opposed it. SMU, a regional university, vigorously opposed it for fear of losing its local identity by being absorbed into a statewide university system; and the faculties involved opposed it for similar reasons. Due to this opposition, the "super board" proposal was never introduced as legislation. However, it did trigger a new wave of reorganization efforts.

In January 1977, the BHE submitted its own reorganization bill, H 619, to the legislature. The bill sought to strengthen the agency's position. Specifically, its provisions would eliminate the controversial segmental representation and replace the existing board with an eleven member lay group appointed by the Governor. Additionally, it would create a thirteen member board which, when combined with the BHE board, would serve as the state's "1202 Commission." The Chancellor of Higher Education, chief administrative officer of the BHE, would then serve as secretary to both bodies.

In terms of organizational mission, the role of the proposed body resembles that of the existing BHE. Says the bill:

The purposes of the board shall be to support, facilitate, and delineate functions and programs for institutions of higher education in the state or segments of such institutions, to allocate to them the responsibility and autonomy to discharge such functions and programs, and to plan and develop efficient and effective coordination among them; provided, however, that the determination of individual courses within a general program of study shall be the sole responsibility of each public institution of higher education.³⁵

To implement this goal, the BHE proposal would sever the agency from the secretary's purview. Additionally, it would authorize the board to add or delete budget requests from public sector institutions -- which,

at present, it cannot do. Although the bill would strengthen the board's administrative authority in these areas, it would not grant the agency the power to eliminate institutional programs without approval of the concerned boards.

Bill to Abolish

The Governor, believing the BHE proposal did not go far enough, within several weeks introduced his own bill, H 5767. It would abolish the BHE and replace it with a "Board of Overseers" for the Commonwealth's public colleges and universities. In his proposal's cover letter to the legislature, he described bluntly the need for stronger managerial control:

Our public higher education institutions are at a difficult turning point. They are moving from a period of rapid expansion and development to a time in which fiscal restraint and institutional consolidation must be the watchwords. The next few years will increasingly demand effective coordination and rational planning if we are to preserve and enhance their educational quality.

Today Massachusetts does not have a system which can accomplish such planning and coordination. The Board of Higher Education... is unable to respond to today's conditions because it lacks explicit statutory authority to implement its plan and budget recommendations, because five out of its twelve voting members represent segmental interests, and because of the built-in statutory bias favoring continued growth. In addition, there is not statutory connection between the Board of Higher Education and the Executive Office of Educational Affairs, an office that was established in response to the emerging management requirements of the 1970's. This separation has further isolated the Board of Higher Education from today's reality.³⁶

Under terms of H 5767, a 14-member lay board would replace the BHE. The Governor would appoint the members for five-year terms, with service limited to two terms. None would have segmental affiliation. In general, the role of this body would be to develop a long range plan for higher education in the state, giving particular attention to such things as existing economic realities, educational needs and program

duplication. It would also be substantially stronger than the BHE proposal. For example, the governor's bill would empower the Board of Overseers to:

- Dismantle programs without approval of segmental boards;
- Establish statewide tuition and student fees for public higher education institutions;
- Conduct periodic evaluations of institutional programs and make recommendations based upon a variety of criteria, including manpower needs of the state;
- Require governing boards of public institutions to develop institutional and state-wide long range plans.

Consistent with the previous proposal, the board would continue to select the Chancellor.³⁷

The reorganization efforts by Mr. Harrington, the Governor, and BHE were not the only proposals developed in recent years; but they are the most significant and indicative of the level of concern emerging in the state regarding public higher education. Because of these developments the General Court created a special commission last year to analyze the reorganization issue and develop legislation recommendations. The commission, now in its initial stages of operation, consists of five members of the state senate, ten from the lower house and ten persons appointed by the Governor, one of whom is the Chancellor of Higher Education.

To date the commission's activity has been minimal. Since its inception last year it has held only several meetings and at this writing is still in the process of hiring a professional staff. The

commission, headed by Senator Walter Boverini, a former school teacher with 18 years of classroom experience, is not expected to take any substantive actions until after the November elections. This, then, is the situation in Massachusetts and factors involved in the reorganization issue.

Recommendations

The suggested course of action put forward here rests upon several assumptions. Specifically, the broad objectives of Massachusetts' reorganization effort should be to:

- Maximize lay control over public higher education;
- Obtain sufficient institutional independence from the Governor and legislature to insure academic freedom and avoid the politics of immediacy;
- Develop a comprehensive statewide planning and coordination capacity to facilitate the efficient delivery of services; and
- Eliminate the rivalry between the BHE and Secretary's office for serving the above function.

To obtain these broad objectives the course of action suggested is to (a) eliminate the BHE and Massachusetts Postsecondary Education Commission as they now exist, and (b) create a new, autonomous agency for statewide planning, academic program review and budget analysis. This agency would be called the Massachusetts Higher Education Commission (MHEC) and be directed by a 15-member lay board appointed by the Governor. Trustees would be appointed for nine-year terms and could not be affiliated with a state institution of higher education. In addition to these lay members, the Governor and State Senate President

would serve as ex officio, non-voting members. The terms of original appointments would be staggered to preclude the long-term prospects of a single Governor's appointments controlling the board.

Powers of the new agency would be stronger than the existing BHE. Specifically, MHEC would be empowered to:

- Revise appropriation requests for public segments and make budget recommendations to the Governor and legislature;
- Approve/terminate academic programs of institutions previously under BHE purview;
- Collect data for statewide planning and program evaluation;
- Serve as the state's "1202 Commission" when its membership is supplemented as required by federal guidelines; and
- Conduct studies and make recommendations to the legislature and Governor for improving the delivery of public higher education.

In addition to MHEC, a second commission would be created to administer all state scholarship programs. Called the Massachusetts Scholarship Commission, it would be governed by a 15-member lay board appointed by the Governor for terms of seven years each. Similar to MHEC, it would submit its budget requests to the Governor and legislature and employ its own support staff.

Budgetary Process

The budgetary process would be revised in several ways. Public sector boards, for example, would submit their respective appropriation requests to MHEC for analysis and consideration. However, unlike the existing procedure MHEC would be required to submit only one,

comprehensive budget request for all public higher education. This request would not show original segmental estimates of financial need, only the results of MHEC's analysis. MHEC, in turn, would submit concurrently the results of its analysis to both the legislature and Governor (through the Secretary of Educational Affairs). A second modification concerns funding for MHEC. Under the proposed procedure, it would develop and submit its own appropriation requests simultaneously to the legislature and the Secretary to the Governor. However, the agency would be severed from the Secretary's direct supervision and personnel control.

The above recommendations would require a series of amendments to clarify the role of the Secretary of Educational Affairs vis-à-vis higher education. In effect, the language would remove the Secretary's role in statewide planning/evaluation while retaining budgetary responsibilities, except as noted. With this power, plus his input in the appointment process, the Secretary would continue to provide service to his chief client, the Governor.

The limitations of this course of action are obvious. The proposed MHEC, though stronger than the BHE would, like its predecessor, suffer from a lack of constituency. Obtaining adequate funding for its operation would continue to be a struggle. Moreover, institutions will continue to search out their friends in the legislature to protect their interests. This would work against MHEC's efficiency efforts in the areas of budgeting and program consolidation. And finally, although the recommendations here would specify the role of the new commission with some precision, it would continue to leave in doubt the overall role of the Secretary of Educational Affairs.

On the other hand, the recommended course of action is not without benefits. It would put to rest the plight of a beleaguered BHE and replace it with a new, stronger organization. Because of the proposed organizational design of MHEC (e.g. lay board, appointed for lengthy terms, stronger powers, not under direct budgetary control of the Secretary), it should help buffer the academic community from political intervention and the politics of immediacy. In addition, though it does not resolve the Secretary's overall position, it at least clarifies the office's role in the area of higher education planning. For the segmental boards, the proposal retains their ability to develop strengths unique to their institutions and administer their resources within the context of a stronger statewide governance framework. Finally, the proposal is modest and not without political possibility. It would represent, perhaps as much as anything, a symbolic response to the emergence of new governance needs in Massachusetts. In the process it could serve as the basis for future incremental improvements as the needs become more severe and a political consensus more developed.

Other Alternatives

In recommending this course of action, consideration was given to several other alternatives. These include eliminating both the BHE and Secretary while strengthening the staff resources of the state legislature; regionalization; creating a "super board"; and maintaining the status quo.

Strengthen legislature. This alternative eliminates BHE and Secretary's statutory role in public higher education. Concurrently, the legislature's ability to make informed choices would be strengthened by supplementing the technical staff of its research and education

committees. With improved technical capacity the legislature could better assess the educational implications of its policy alternatives. Existing segmental boards would continue to function as they now do and bargain with the legislature for resources. The scholarship administration function would be provided by creating a new scholarship commission as recommended.

A central strength of this approach is that it recognizes the legislature for what it is in practice: the real board of higher education. That is, it would strengthen and formalize the existing, informal decision-making process.

Throughout the history of the Commonwealth, the legislature has jealously guarded its control over educational decision-making by refusing to delegate much authority to the Governor, Secretary of Educational Affairs, BHE, or the segmental boards. It was not until the early 1960's, for example, that the segmental boards even obtained fiscal autonomy and were able to make internal adjustments to their appropriated funds. Still today, the General Court retains tight control by requiring public institutions to return tuition revenues to the state's general fund. One clear strength then, is that this approach would eliminate the confusions and ambiguity in the state about which organization has responsibility for statewide planning/coordination and improve the ability of the legislature to make informed choices.

Other strengths include the likelihood of reducing costs of state-wide planning/coordination, preventing decision-making from being removed even further from individual campuses and segmental boards; and it would likely be supported by the regional universities and other public segments who want to retain direct access to the legislature.

On the other hand, this approach is not without limitations. The most significant concerns the nature of the staff that would likely be hired. The legislature is by its nature political and partisan; the prospects of the planning and analytical staff reflecting these political concerns would be high. With politically partisan staffs, appointments would be subject to patronage and placing a higher priority on political loyalty than on technical expertise. Under these circumstances, educational needs could be quickly subverted to political expediencies. In short, the potential for professionally weak staff appointments may overshadow the benefits accrued.

Regionalization. This approach consists of disbanding the existing segmental boards and replacing them with several regional boards. These lay boards would exercise control over all public institutions of higher education within their region. Strengths of this approach include maximizing the responsiveness of institutions to their regional needs; improving the efficiency of operation and coordination among institutions within a given region; and it would maintain lay control over the public sector.

However, this course of action also has a variety of drawbacks. First, it would carve the state into fiefdoms with each region competing for limited state resources. The allocation of these resources from the state would, in turn, be heavily influenced by the political clout of a region's legislative representative. This would result in state

appropriations and resources responding more to political clout than educational needs. Additionally, efforts to improve the economic delivery of services by such things as moving/firing faculty or consolidating programs would be limited by several constraints. Statewide collective bargaining contracts could virtually immobilize cost-saving personnel transfers or terminations. Moreover, even if collective bargaining limitations did not hinder economizing through personnel changes, other factors would. Even in a regional setting, for example, schools and/or faculties threatened would continue to seek redress from the legislature; and there is every political reason for a district legislative representative to respond favorably. What legislator wants to preside over the closing down of an institution, or the reduction of state funded educational services in his or her district? Most likely none.

Finally, specialized faculties are not easily mobilized from one segment to another, e.g. transferring a faculty member from a community college to a state university. Since faculty expectations, levels of academic training and student bodies are different at various levels -- community college, state college and university -- transferability of personnel is simply not as practical as one might at first expect. In short, faculties are not a homogenous group subject to easy managerial recombination or reorganization for efficiency purposes.

"Super board." This alternative would eliminate the BHE and create in its place a strong, centralized governing board for all public higher education. Segmental boards would continue to exist; however, all of their activities would be subject to the authority of the statewide, lay "super board." As such, this board would exercise control over programs, budgetary and personnel matters.

A strong board such as this offers several strengths. First, it would provide a governance structure strong enough to enforce statewide coordination efforts. Unlike the "regionalization" approach, a broader base would be established for the transfer of faculty to improve their efficient use. Excess faculty at SMU or Lowell, for example, could be moved to the University of Massachusetts; or individual university campuses could develop particular strengths, allowing for cutbacks in other areas.

Second, this approach would maintain lay control over the public system by fixing overall responsibility and accountability in a centralized lay board. With a strong statewide board, the legislature could look to it to implement its broad policies, rather than becoming enmeshed with the details of five separate systems. In other words, a "super board" could help preserve academic freedom by serving as a buffer between public higher education and the state's political institutions.

The limitations of this alternative include both the weaknesses inherent in centralized planning and demonstrated political constraints. On the first point, a strong "super board" would centralize decision-making and preclude the possibility of spreading the margin of error. That is, if a mistake is made by the central body, it is felt throughout the system. The strength of a decentralized approach is not that individual campuses or segments will make the "right" decisions; but that when they do make a mistake, at least it does not affect the whole public system.

In addition, there are good reasons for keeping the locus of decision-making as low in the organizational structure as practical, e.g. at the campus or segmental level. For decision-makers at lower levels tend to be (a) more knowledgeable about specific details of their operation, (b) better able to assess the potential operational implications of given alternatives, and (c) better able to determine the impact of decisions on their operations more quickly and expedite corrective actions.

Finally, this approach suffers from several political liabilities, the chief one being the strong opposition it would provoke among the involved public segments. As in 1976, the regional universities would fight it bitterly. Both SMU and Lowell enjoy their autonomy from the University of Massachusetts and fear that under a "super board" they would be absorbed into the statewide system, which, they feel, would reduce their ability to obtain state funds for their regions. With strong state representatives in the legislature, as is now the case, they are able to protect their regional interests through the political process. Under a statewide board, this would be more difficult. This same rationale holds true for the segments which have fared well for the last two decades under the existing system. Put most simply, because these broad political forces are unlikely to change in the short run, the political feasibility of enacting this alternative seems limited, if not remote.

Status quo. This alternative could be implemented by the existing study commission simply filing an innocuous report, taking its place among the some 36 other such studies initiated by the General Court. This approach is not without some strengths. First, one of the chief catalysts for reorganization has been Governor Dukakis and the rivalry

with the BHE created by his Secretary of Educational Affairs. The recent defeat of the Governor in the Democratic primary election will remove both from the political arena. Thus, one source of pressure for reorganization is no longer on the policy making process.

Second, there does not appear to be any real sense of urgency for reorganization among state legislators. In part, this results from the absence of any clearly charted, safe political course of action. Some general consensus has emerged regarding the limitations of the existing governance structure. However, public higher education is not perceived as being in enough trouble yet to warrant legislators running the political risks inherent in reorganization. Enrollments, for example, have been projected to decline substantially over the next two decades; but classrooms are not empty yet. Public higher education in this state is still a substantial enterprise with political clout. Where is the incentive for a state legislator to reorganize the governance structure against the wishes of a significant constituency in his or her district? Since the individual campuses, or segmental boards, are not pressing for reorganization, the safest course of action for state legislators with campuses in their districts is to maintain the status quo. Since politicians tend to be risk-averse, there is a strong incentive for the legislature to pursue this course of action and defer acting on the issue until a consensus emerges; that is, until the next decade when either the present anxieties have dissipated or the situation has become drastic enough to generate a consensus for reorganization based on some iteration of one of the alternatives already mentioned.

On the other hand, doing nothing has its limitations as well. For example, due to the emergence of competing social demands on the state (e.g. health, welfare) and its limited fiscal capacity, Massachusetts cannot afford to use its resources inefficiently. Even if it could, the public "Proposition 13" sentiment would not support it for long. In effect, this means that the state must allocate public education dollars where needed most and where they can exercise the most leverage. Operationally, this means eliminating the overlap and duplication of services.

It is simply not clear at all that the existing structure will facilitate this goal. As noted, the existing process offers no incentive for developing statewide economy. It rewards legislators who maximize the allocation of state dollars into their respective districts and the distribution of education dollars according to political clout is not necessarily consistent with their efficient use. In other words, simply removing the current set of political catalysts -- Governor and Secretary -- will not substantially change the state's fiscal realities.

Similarly, these political changes will not alter the basic change in demography that, as indicated, will substantially affect enrollments during the next two decades. Refusing to take corrective action now to allocate funds more efficiently will only increase the inefficient use of limited resources and the need for change.

VI. MASSACHUSETTS STUDENT FINANCIAL AID

The Commonwealth's financial aid effort, like its system of higher education, is noteworthy on several counts. Its General Scholarship Program is one of the oldest state-funded programs in the nation. Its state-chartered student loan corporation was the first of its kind in the country. And collectively, Massachusetts student aid programs confront one of the largest public/private tuition gaps in the nation with nearly the least level of state assistance available.

This section will examine Massachusetts' student aid situation. It will describe the various assistance programs available, note the interrelationship of their broad goals of "access" and "choice" with state political/economic conditions, and examine the current level of attainment in meeting these objectives. The assessment will consider such things as student participation by income level, the application of a "net price" model, and the fit between state and federal programs. Finally, it will offer several recommendations for improving program effectiveness.

In general, this analysis suggests that while the goal of providing residents with "access" to higher education has been met, allowing them reasonable "choice" among institutions has not. In both instances the impact of state financial aid is minimal. Essentially, "access" results from low public tuition fees and federal assistance programs -- not state aid. And "choice" is generally limited to those at the economic extremes. This is because federal assistance programs are designed chiefly for "access," and state scholarship awards are too small to provide much "choice" among the Commonwealth's diverse institutions.

Programs

Massachusetts has twelve different student aid programs. Seven are need-based and three are non-need-based. In addition, it has a new matching scholarship grants program for private institutions as well as a state-chartered corporation to support student loans.

Need-based programs include general assistance and a series of categorically funded scholarships, e.g., nursing, special education, dental, medical, dependents of certain deceased veterans, and participants in specified educational consortium programs. Non-need-based grants are available through several special programs including the Massachusetts Honor Scholarship, Massachusetts Scholarship for Children of POWs/MIAs, Deceased Firemen, Policemen and Correctional Officers, and the Massachusetts Vietnam Veterans Program.

Among the state's total assistance effort, three emerge as the most significant in terms of funding and awards. These are the BHE General Scholarship, which is the chief student aid vehicle for the Commonwealth; the Matching Scholarships Grant Program, which is newly created but rapidly growing in importance; and the Higher Education Loan Program, which is administered by a state-chartered corporation and makes a substantial number of loans to Massachusetts residents. As a group they provide \$18.7 million in grant support and more than \$58 million in student loans. This level of activity is significantly more than the otherwise state-funded student assistance programs combined (see Appendices K and J).

The General Scholarship Program was established in 1950 and is clearly the major state-funded student grant program in the state.

It is designed to assist full-time, undergraduate resident students in all degree programs at accredited institutions both in and out of state. Awards are made on the basis of financial need using CSS guidelines, and the type of institution to be attended. The maximum award level for a student attending a public in-state institution is \$300; \$600 for a non-Massachusetts public institution; and \$900 for a private college or university, regardless of location. In terms of scale, the current total appropriation for the program is \$15.16 million, including \$2.16 million in federal SSIG funds. The BHE estimates that this level of funding will enable the agency to make some 24,000 awards this year, from among the 80,000 applicants.

The second major scholarship source is the Matching Scholarship Grants Program. Through this program, the state allocates funds to private institutions according to the level of scholarship support each institution awards to Massachusetts students. It is a "matching" grant in that program regulations call for participating institutions to use 50 percent of the state grant to assist needy Massachusetts full-time students and the remaining 50 percent as the institution wishes. As designed, the program allows individual institutions to determine scholarship award levels according to their own respective guidelines.

Although the program has been in operation only since 1976, it has quickly become a major instrument for student assistance. For example, the first year appropriation was \$1.75 million. The most recent records show the program serving more than 17,000 state residents among 64 different Massachusetts institutions.³⁸ Similar figures have not been compiled for the current fiscal year. However, the General Court has recently doubled its appropriation for the program.

At the current \$3.5 million level, the program represents the second largest state-funded grant activity in Massachusetts.

The prospects for continued growth in this program appear likely. AICUM, the lobby group for Massachusetts private institutions, was instrumental in pushing it through the legislature. Because of the financial plight of the private sector and the program's institutional aid provision (50 percent), AICUM indicates that continued expansion of this program will remain a top legislative priority.

The third major student assistance resource is the Higher Education Loan Program (HELP). It is administered by the Massachusetts Higher Education Assistance Corporation (MHEAC). This is an autonomous corporation established in 1956 as a result of interest among Massachusetts' education leaders, business community, and governor. All were concerned about the inadequate financial aid available to help state residents attend college. The corporation is governed by an independent board of directors and receives no state funds.

MHEAC does not itself issue loans but guarantees the repayment of student loans to participating lending institutions. Students therefore negotiate directly with lending institutions for HELP loans and are charged a one percent loan fee for the MHEAC guarantee. Undergraduates can borrow up to \$2,500 per year but not more than \$7,500 during the course of obtaining a bachelor's degree. Similarly, graduate students may borrow a maximum of \$5,000 per year but not more than \$15,000 for both undergraduate and graduate degrees. Eligibility requirements include being (1) a U.S. citizen and permanent state resident, and (2) enrolled, or accepted for enrollment, as at least a half-time student in an accredited educational institution. Since the program's

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inception, some 350 lenders have issued more than \$256 million in HELP loans. The most recent annual loan figures, 1977, show 35,076 residents receiving a total of \$58.2 million. This amounts to an average loan of approximately \$1,660.

Multiple Objectives

The state's student assistance programs serve multiple objectives today. From their traditional objective of providing state residents with "access" to higher education they have, in recent years, begun to emphasize a second dimension: "choice." While both are founded on the state's fundamental liberal value of maximizing equal educational opportunity, the latter appears to be generated as well by economic and political conditions. To understand Massachusetts' student aid objectives, then, it would be helpful to consider them from several perspectives.

At one level, the goal of student aid is to enhance equal educational opportunity among state residents. The focus of this perspective concerns the value and benefits of programs for individual state residents. In this context, as indicated in a recent Harvard University report on Financing Higher Education in Massachusetts, the objectives of "access" and "choice" can be defined as follows:

Access...means that a Massachusetts resident should be able to be admitted to enroll in a program of higher education suited to his interests, capabilities and motivations. The student should not only be guaranteed a "place" in some institutions, but he should have the opportunity to select and to attend the institution which best meets his needs. This opportunity is what is meant by choice.³⁹

To a large extent Massachusetts' student assistance programs are discussed, analyzed and evaluated on the basis of this politically

attractive liberal goal. However, since the financial crunch of the 1970's, student aid has been promoted to accomplish a broader set of economic objectives. These stem from a political decision by the private sector to seek state financial assistance through the indirect vehicle of student aid. And since at least 1972, this has taken the form of emphasizing the notion of "choice" as an important dimension for student aid policy.

The origins of this push for "choice" can be traced to a series of political maneuvers by AICUM that began in 1969. That year, as noted in a previous section, AICUM requested then Governor Francis A. Sargent to establish a select state committee to study the financial condition of Massachusetts private higher education. The report filed by the committee in 1970 examined the eroding economic condition of private higher education and noted its educational, economic, and social contribution to the Commonwealth. The committee concluded its report by calling for the state to provide direct financial support to private higher education. Said the report:

We recommend that the funding level for the direct grants program be set as a percentage (15 percent) of the cost to the state of producing a degree in a comparable Massachusetts public institution. This formula reflects the Committee's belief that, by serving a substantial number of Massachusetts residents, the private colleges and universities relieve the Commonwealth of responsibility of educating those residents solely at public expense.⁴⁰

One immediate impact of this activity was to raise as a policy issue the state's role in supporting private higher education. It also noted, for the first time, the linkage between the economic needs of private higher education and the Commonwealth's broad student assistance objectives:

Throughout its deliberations the Committee, in line with its charge, concentrated on the needs of Massachusetts private institutions, not necessarily on the needs of the students who attend them. However, it became apparent during the study that private institutions incur significant deficits in their student aid programs. These deficits represent an important contribution of the private institutions toward achieving the state goal of expanding educational opportunities. In fact, it can be said that these institutions, through their financing of student aid to Massachusetts residents, are assuming a burden that is rightfully a responsibility of the Commonwealth. Therefore, we also recommend that to help relieve this burden, the Commonwealth should rapidly accelerate the current expansion of the scholarship program.⁴¹

Constitutional Amendment

With the establishment of these linkages, private institutions began a political effort to obtain direct state grants. This necessitated, however, amending the Massachusetts Constitution which, since 1917, precluded the use of state funds to support non-public education. During the next several years, private institutions helped orchestrate a series of activities to eliminate this constitutional barrier. The first step involved the adoption of amending legislation by the General Court. This was begun when State Representative Michael Daley introduced H 1881 to make the necessary amendments. That measure received strong support and was approved by the legislature for the first time in 1972. The vote was 250-3. Following this, the General Court directed the Legislative Research Council to study the strengths and weaknesses of the proposed constitutional amendment. That report, while making no policy recommendation, identified the case for the amendment as including the need to preserve the diversity in higher education and the financial cost to the state of filling any void generated by the loss of Massachusetts' private sector.

By 1973, two wide-ranging policy studies conducted for the BHE had also called for eliminating the constitutional barrier and increasing the level of state support for student assistance programs. One study suggested that the state give "serious consideration to providing cost of education grants to private institutions for each Massachusetts student or scholarship recipient enrolled"⁴² and the other called for the creation of an "equal opportunity pool"⁴³ to enrich scholarship opportunities and "some form of state support to the private sector."⁴⁴

Throughout this period, several forces were developing at both the national level and in the state that would alter Massachusetts private institutions' political strategy for seeking public financial support. At the national level, the higher education establishment in general and private institutions in particular were lobbying Congress to have the 1972 education amendments include direct institutional aid. However, despite a major effort by the national associations, Congress balked. Rather than appearing to bail out failing institutions, Congress elected to provide indirect support through establishing a major student assistance program: Basic Educational Opportunity Grant (BEOG). This approach had the political appeal of enhancing individual access to higher education and, at the same time, infusing massive federal dollars into higher education. With the establishment of this concept at the national level in 1972, a significant new dimension was added to the overall goal of student assistance programs. Not only are they to increase student "access" to higher education, but they also serve as a politically attractive vehicle for channeling public funds into institutions.

While this approach was firmly established at the federal level in 1972, forces were developing in Massachusetts that would produce similar results. Public institutions, for example, were by 1973 and 1974 becoming increasingly concerned that passage of the proposed constitutional amendment would result ultimately in budget losses for them; that is, that state education dollars which would otherwise support public institutions would be diverted to the private sector. In addition, the leadership in public higher education was chafing at lobby efforts among private institutions to improve their competitive position by increasing public tuition fees. By the summer of 1974, it was clear that unless some accommodation could be made to the public sector, it would oppose the constitutional amendment and weaken its chances for passage on the November ballot. As a result of a series of meetings held between public and private educational leaders during the summer of 1974, a compromise was reached. The private sector agreed to not lobby for higher public tuitions; and, in return, the public sector agreed to withdraw their opposition to the amendment and to not oppose expansion of state student assistance programs.

The electorate approved the amendment in November by a vote of 829,465 to 580,298 and cleared the way for providing state support to private higher education. However, by 1974, as a result of the fundamental shift in political strategy at the national level and the compromise obtained in Massachusetts, the focus of obtaining economic relief had changed from direct institutional grants to expanding state student aid programs. And with this development, the objectives of Massachusetts'

student assistance programs have become more complex. Not only do they now attempt to equalize educational opportunity among state residents but they also indirectly subsidize an important state industry: private higher education. Operationally, this is defined today as providing students with not only "access" to higher education, but also a reasonable "choice" among both public and private institutions.

Level of Attainment

In assessing Massachusetts' current level of attainment in meeting its student assistance program objectives, consideration will be given to the individual perspective; that is, the extent to which state residents do have "access" and "choice." Emphasis is placed on this perspective since policy issues are being debated in these terms at the legislative level, and the economic aspects of Massachusetts institutions have already been discussed in a previous section. Therefore, the analysis here will examine who can participate in higher education and what role student assistance programs play in promoting the objectives of "access" and "choice."

In order to place this issue into perspective, certain basic statistics will be examined, including numbers of families with 18-24 year-old members (dependent or independent);⁴⁵ numbers of students who want to, are intellectually capable of, and are financially able to pursue higher education; and finally participation rates of various groups of people, i.e., numbers of people who actually do attend institutions of higher education. Because this analysis will concentrate on financial aid programs (and not, for example, on programs of affirmative action), the major variable used to differentiate groups of people will be family income. As it is, a recent report called Financing

Higher Education in Massachusetts: Policies for the Near Future shows that income is far and away a more important determinant of differential access to higher education than is either race or geographic region, and is somewhat more important than sex.⁴⁶ In any case, there are a myriad of statistics which can be examined to understand the current situation in Massachusetts.

First, it is important to identify the economic distribution of people in the 18-24 year-old cohort, or those in the traditional college age group. This can be ascertained by family income, from Census Bureau data which is documented in Table XII and geographically displayed in Figure 1. As indicated in both these figures and from Figure 1, Massachusetts is wealthier than is the nation-at-large. Thus, the income distribution of those families with dependent 18-24 year-old members is even more skewed toward the model \$30,000 income figure in Massachusetts than is the case for the United States. Similarly, the distribution of all family income (regardless of independent/dependent status of their members) tends to be remarkably flat for Massachusetts, while the nation's as we know, is heavily skewed toward low-income ranges.

What do these figures suggest? In the first place, they provide the "roughest" estimate of the group which is potentially available for higher education in Massachusetts. It is problematic as to which pool -- those with dependent family members, or all those with 18-24 year-old members -- should be used. However, it makes intuitive sense to look at the pool of families with 18-24 year-old dependent members, since most students (except, as we shall see, at the community colleges) are dependent and since the Massachusetts and federal programs of

TABLE XII

DISTRIBUTION OF FAMILY INCOMEFor families with 18 - 24 year-old dependent members

<u>Income</u>	<u>Percent of Population</u>	
	<u>United States</u>	<u>Massachusetts</u>
Less than \$5,000	4.6%	1.9%
\$5,000 - \$9,999	11.3	5.6
\$10,000 - \$14,999	15.2	12.5
\$15,000 - \$19,999	17.9	18.0
\$20,000 - \$24,999	16.5	19.4
\$25,000 - \$34,999	21.3	24.6
\$35,000 or more	13.3	18.0

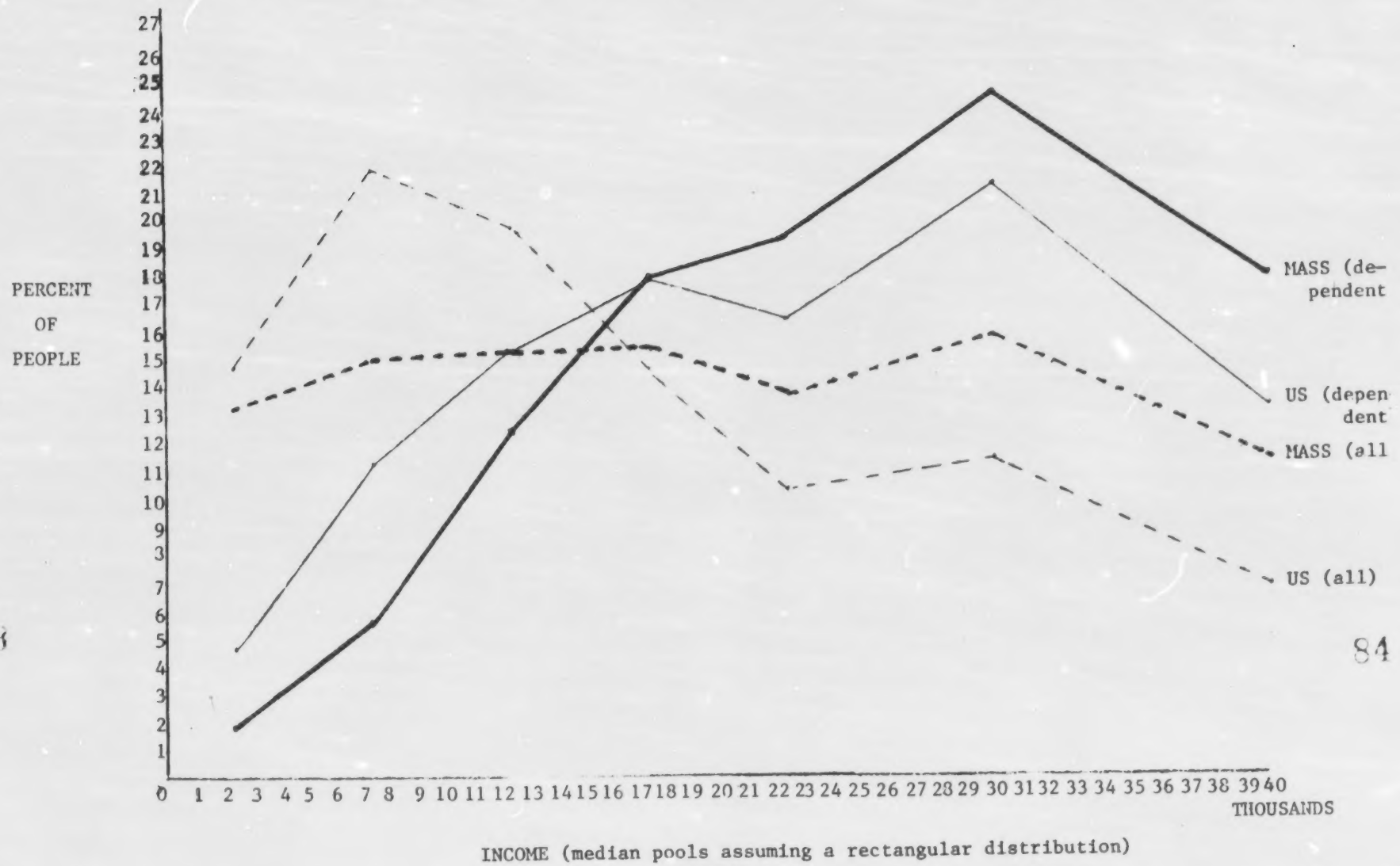
For families with 18 - 24 year-old members

<u>Income</u>	<u>Percent of Population</u>	
	<u>United States</u>	<u>Massachusetts</u>
Less than \$5,000	14.8%	13.2%
\$5,000 - \$9,999	21.9	15.0
\$10,000 - \$14,999	19.8	15.2
\$15,000 - \$19,999	14.7	15.3
\$20,000 - \$24,999	10.4	13.9
\$25,000 - \$34,999	11.5	15.9
\$35,000 or more	6.9	11.4

Source: Department of Commerce, Bureau of the Census, Unpublished Data from the Survey of Income and Education (SIE) of 1976.

FIGURE 1

INCOME DISTRIBUTION (1976)



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financial aid are based upon parental contributions, which become problematic in the case of the independent student.⁴⁷ On the other hand, looking at such a pool is dangerously close to a tautology. Why, for example, is a given 18-24 year-old person still dependent upon his/her family? If, in many cases, the answer turns out to be that one remains dependent because s/he is in college, then the population pool examined is too narrow. Thus, consideration should be given to these pools and their differences as documented in Table XI and Figure 1. What this shows is that the group of families with 18-24 year-old dependent members is, in fact, more affluent than the corresponding group of families with 18-24 year-old dependent or independent members. This tends to affirm the suspicion suggested above as well as notes the importance of creating some coherent policy concerning independent students.

Obviously, the group documented above represents one of the largest pools of people which can be conceptualized as being affected by the system of higher education, and its financial aid component. One can now ask: what happens to the shape of the income distribution of this group as one progresses through certain key events in life? For example, high school graduation rates certainly affect the pool of people available for higher education.⁴⁸ The task is to see whether this effect is disproportionately felt by certain income groups. The same Census Bureau reports show the following:

TABLE XIII

HIGH SCHOOL GRADUATION RATES BY FAMILY INCOMEFor families with 18 - 24 year-old dependent members

<u>Income</u>	<u>% Graduating from High School</u>		<u>% of Total H.S. Grads</u>	
	<u>U.S.</u>	<u>Mass.</u>	<u>U.S.</u>	<u>Mass.</u>
Less than \$5,000	48.4%	81.2%*	3.1%	1.9%
\$5,000 - \$9,999	54.2	46.1	8.4	3.2
\$10,000 - \$14,999	64.3	75.1	13.4	11.6
\$15,000 - \$19,999	72.0	75.9	17.7	16.9
\$20,000 - \$24,999	76.8	84.2	17.4	20.2
\$25,000 - \$34,999	83.0	87.0	24.2	26.5
\$35,000 or more	87.3	88.8	15.9	19.8
TOTAL	72.8	80.9	100.1	100.1

(Table II continued on next page)

For families with 18 - 24 year-old members

<u>Income</u>	<u>% Graduating from High School</u>		<u>% of Total H.S. Grads</u>	
	<u>U.S.</u>	<u>Mass.</u>	<u>U.S.</u>	<u>Mass.</u>
Less than \$5,000	67.6%	72.5%	13.2%	12.0%
\$5,000 - \$9,999	70.7	70.8	20.5	13.3
\$10,000 - \$14,999	75.3	79.6	19.7	15.2
\$15,000 - \$19,999	77.9	79.3	15.1	15.3
\$20,000 - \$24,999	79.2	81.7	10.9	14.3
\$25,000 - \$34,999	83.3	85.8	12.7	17.1
\$35,000 or more	87.2	89.2	8.0	12.8
TOTAL	75.7	79.7	100.1	100.0

* This figure may be due to a small sample.

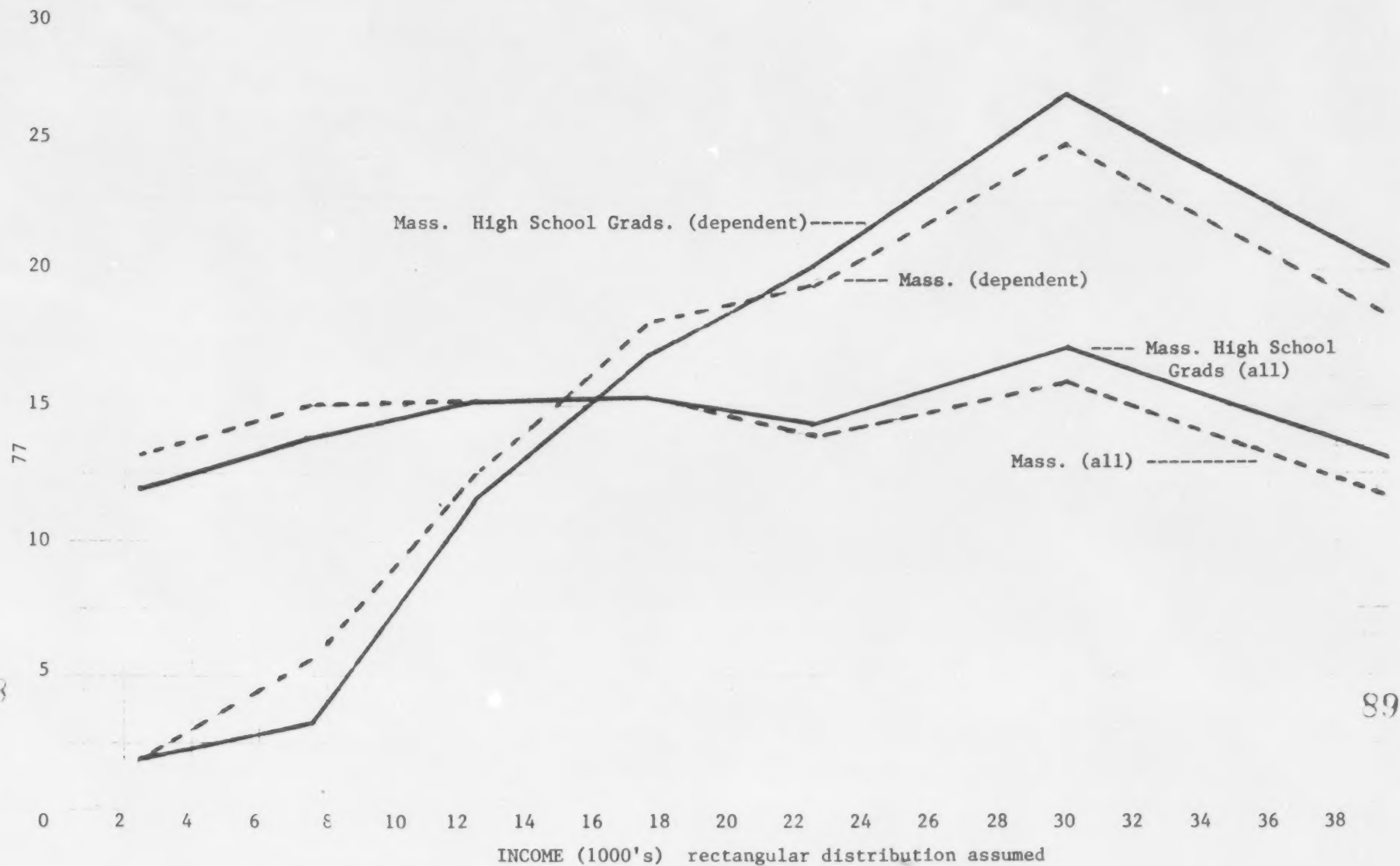
Source: Department of Commerce, Bureau of the Census, Unpublished Data from 1976 SIE.

Figure 2 shows how these figures affect the shape of the income distribution of those people now available to go on to higher education. It is clear that this group (solid lines) is skewed more toward higher incomes than is the superset of all Massachusetts families. However, although this is consistently true, at all income levels and for both dependent and dependent + independent 18-24 year-olds' families, the most striking fact is perhaps that the difference in the composition of the groups is never very large (never exceeding 3%). In addition "dependency" seems far more correlated with differentiation in incomes than is high school graduation.

The exact same result appears for the United States as a whole. Therefore, it has not been put into graphic form.

FIGURE 2
FAMILY INCOME DISTRIBUTION OF MASS HIGH SCHOOL GRADS
AND ALL 18-24 YEAR-OLDS, 1976

Percent of
all people



With just the data presented above, plus some measure of higher education participation by income, it is difficult, if not impossible, to judge the present or political impact of a financial aid system. This is because there are several variables which mediate between high school graduation and college attendance.⁴⁹ These include:

Desire: Simply put, a person must have some motivation to attend college, academic ability and financial resources notwithstanding.⁵⁰ If one does not want to go, he generally will not. Desire, of course, could be correlated with many variables (e.g. parents' education, number of books in house, family income, religion). This analysis will not attempt to offer a social theory or philosophical basis for the development of motivation, however, but rather measure it as expressed by students in several ways.

Ability: A person must also possess certain basic capabilities in order to participate in higher education. For example, if one is not able to read or write, the probability of being admitted to most colleges, even in this era of "excess capacity," is minimal. Ability is reflected in the first variable, desire, and is correlated with many demographic variables.

Financial Resources: Finally, a person may not be able to attend certain institutions or, indeed, any institutions at all, if unable to afford it. Financial resources, like ability, may be reflected in desire (or to complete the circle, financial resources are, it has been shown,⁵¹ statistically correlated with standard measures of academic ability or statistical promise). Also, like ability, financial resources impinge on issues of both access and choice.

This analysis is primarily concerned with the third variable, for at base the question is, how important is financial aid? How much can it accomplish? In order to answer this question, the amount of truncated "access" and "choice" that can be accounted for by lack of desire or lack of ability should be sorted out. The close relationships between these variables (as suggested above) make the findings presented here necessarily tentative, but at least they are a start.

Desire

Desire, as already noted, can in some sense be measured by high school graduation rates. However, there are several other methods of assessing desire which can be examined. For example, one is a simple measure of desire, which results from a BHE survey completed in 1969 (and, unfortunately, never updated). The Kennedy School report cited earlier summarizes these results as follows:

In order to identify areas of possible and appropriate improvements in the achievement of access and choice in response to changes in public policy, it is necessary to determine the degree to which differential participation rates and patterns reflect the existence of institutional barriers rather than student preferences. With respect to family income, available evidence indicates that differential participation rates are more a function of the institutional factors than of student preferences.⁵²

This report controls for preferences and shows the following:

TABLE XIV

INDIVIDUALS DESIRING COLLEGE BUT NOT PLANNING TO ATTEND,
BY INCOME QUARTILE (1969)

<u>Income Quartile</u>	<u>Percent Who Desire College But Do Not Go</u>
Lowest	18.7%
Second	14.0
Third	8.8
Highest	9.3

Source: Board of Higher Education, Higher Education in the Boston Metropolitan Area

Does this mean that individual motivation is not important at all?

According to a report done for the BHE by the College Entrance Examination Board, there is something other than financial and academic constraints operating. A survey conducted by the College Entrance Examination Board (CEEB) in the 1977-78 academic year revealed that 90 percent of those surveyed were enrolled in higher education. The important fact is that of those not enrolled, "46.1 percent said they did not apply because they thought they could not afford postsecondary study, 15.4 percent said they did not think they could be admitted, and the remaining 38.5 percent gave no reason for failing to apply."⁵³ Similarly, the CEEB study states that of those who were not enrolled, 42.1 percent said they had planned to enroll (indicating at least some desire.)⁵⁴ This leaves the question of accounting for the other 57.9 percent, who apparently had expressed no desire. On the other hand, those who had indicated that they did want to go to college, but ended up not going, did seem to be constrained by income. That is, they were poorer: having a mean family income of \$14,517 as opposed to \$15,980 for those who just never wanted to go in the first place.⁵⁵

Similarly, another index to measure the desire for access to higher education is participation in taking the Scholastic Aptitude Test (SAT). This assumes that subjecting oneself to such an examination is evidence of at least some such desire. Calculations show that the income distribution of this group is as follows:

TABLE XV

INCOME DISTRIBUTION OF THOSE TAKING
THE SAT'S* IN MASSACHUSETTS (1977)

<u>Income</u>	<u>Percent of Population</u>
Under \$3,000	1.77
\$3,000 - \$5,999	5.8
\$6,000 - \$8,999	9.6
\$9,000 - \$11,999	13.3
\$12,000 - \$14,999	15.9
\$15,000 - \$19,999	21.4
\$20,000 - \$29,999	21.5
\$30,000 or more	<u>10.8</u>
	100.0

* Note that this is a sample of those taking the SAT's -- those who also filled out a CEEB questionnaire and answered the income question specifically.

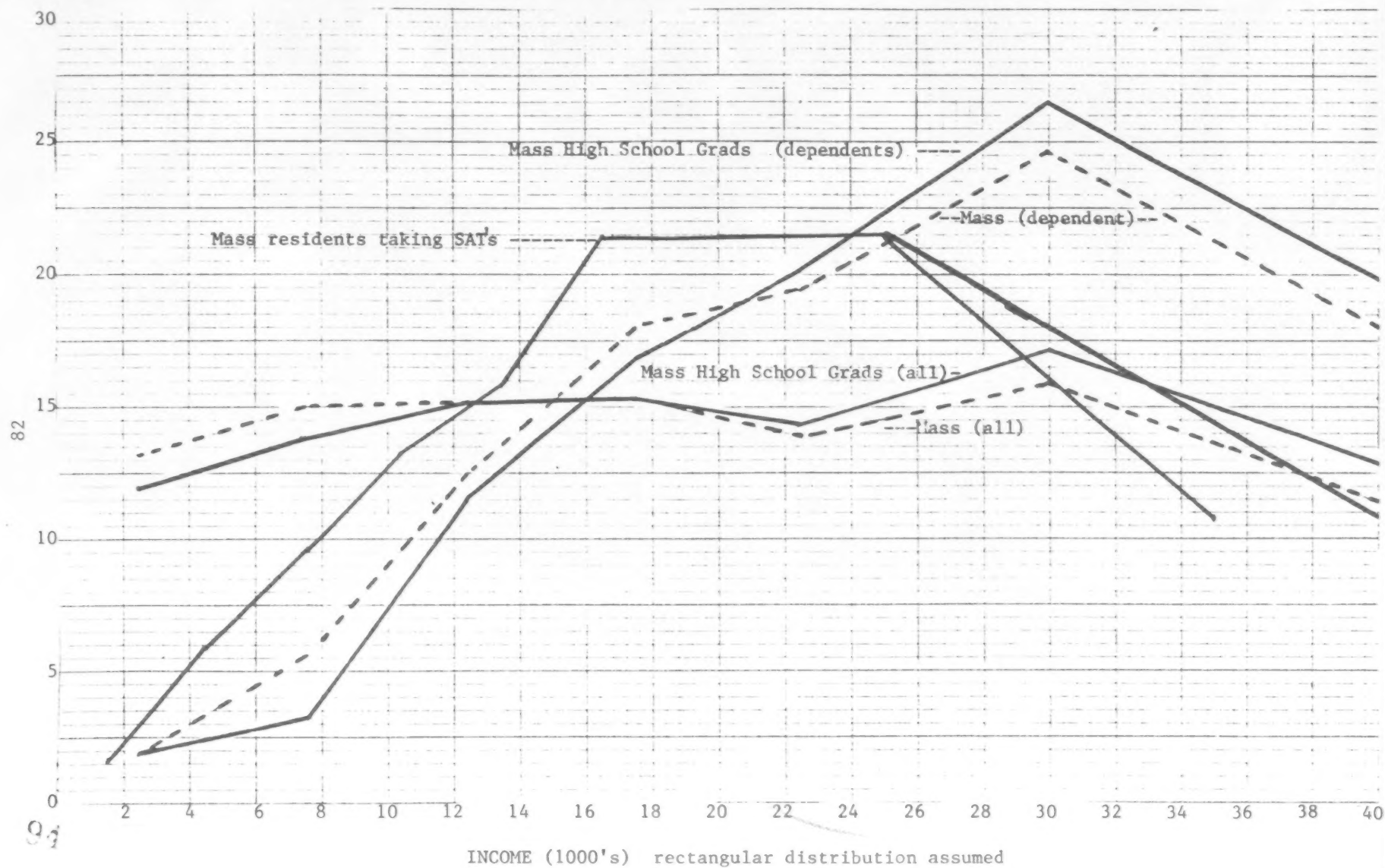
Source: Massachusetts College-Bound Seniors, 1977, a report by the Admissions Testing Program of the College Entrance Examination Board, page 15.

This data is compared with the other Massachusetts income distributions in Figure 3. Although this comparison is limited by some technical imperfections⁵⁶ and potential inaccuracies, it suggests that the income of those taking SAT's in Massachusetts⁵⁷ is higher than that of all high school graduates 18-24 years-of-age, and lower than the 18-24 year-old dependents. Since this pool does not differentiate between independent and dependent students (or those who were to become independent or dependent, since almost all high school students are dependent),

FIGURE 3

INCOME DISTRIBUTION OF THOSE TAKING SAT'S IN MASSACHUSETTS
(1977) OF HIGH SCHOOL GRADS (1976), AND OF ALL 18-24 YEAR OLDS (1976)

Percent of
all people



we have to assume we are working in comparison with the former pool of all high school graduates. This assumption leads to the following conclusion: those taking the SAT's are skewed toward the wealthier students, relative to all high school graduates. However, the very richest show disproportionately less desire, as measured in this way, than their members in the population of high school graduates would suggest. This result is interesting and will be returned to later.

Before concluding an appraisal of "desire," let us briefly examine this variable as it relates to "choice," rather than simply "access." The question then becomes "what schools do people want to attend" rather than simply "do people want to go on to higher education?" To this end, a report prepared for AICUM becomes quite useful, although its results may be subject to some bias. AICUM's questions are particularly helpful since results are stratified by income and since the questions ask to choose between public and private institutions, assuming equal costs to the family. The results appear in Tables XVI A and B.

TABLE XVI-A

Question: Suppose the cost to you were the same no matter whether your child went to the University of Massachusetts at Amherst or whether your child went to a typical or average privately-supported college. In that case, where would you prefer your child to go?

<u>Income</u>	<u>U.Mass</u>	<u>Percent Responding:</u>			<u>Total</u>
		<u>Privately-Supported</u>	<u>Depends on which privately-supported school</u>	<u>Don't Know</u>	
Less than \$6,000	37%	28%	19%	16%	100%
\$6,000 - \$9,000	27	42	12	19	100
\$9,000 - \$12,000	33	34	19	14	100
\$12,000 - \$15,000	26	37	23	14	100
\$15,000 - \$20,000	18	44	22	16	100
\$20,000 - \$30,000	20	48	19	13	100
\$30,000 and over	5	51	36	8	100

TABLE XVI-B

Question: What if the cost were the same to you no matter whether your child went to a state college or university other than the University of Massachusetts at Amherst, or to one of the typical or average independent or privately-supported colleges or universities located in the state? In that case where would you prefer your child to go?

<u>Income</u>	<u>State College</u>	<u>Privately-Supported</u>	<u>Depends on Which School</u>	<u>Don't Know</u>	<u>Total</u>
Less than \$6,000	26%	28%	25%	21%	100%
\$6,000 - \$9,000	25	32	18	25	100
\$9,000 - \$12,000	29	35	20	16	100
\$12,000 - \$15,000	29	38	19	14	100
\$15,000 - \$20,000	16	45	23	16	100
\$20,000 - \$30,000	16	44	20	20	100
\$30,000 and over	8	53	26	13	100

Source: Research Analysis Corporation, "Public Attitudes in Massachusetts Regarding the Commonwealth's Independent Colleges and Universities" Prepared for: AMICUS, Inc., an association of Massachusetts independent colleges and universities, pages 4-5.

What the above tables show is that parents' preferences concerning their children's education are correlated with income. Simply put, wealthy parents appear more committed to a private education for their children than are poorer parents. While the correlation is not perfect, it does indicate a clear trend in this direction. One can probably assume that these parental attitudes are at least in some, if not very great, measure adopted by students. Therefore, desire appears correlated with income and may, in fact, exert some independent effect on the overall picture: poor people may participate less in private education, for example, because of less desire for it.

It is interesting to note that the only real substantive difference between the two tables is that poor people find the University of Massachusetts far more acceptable an option than the state colleges (compare column 1, rows 1 and 2 in the tables). Thus, within the public sphere, some "choice" is desired by those in lower incomes.

In general then, this data indicates that desire is of some, if limited, importance. Income is correlated with desire and, leaving aside its independent impact on desire, underrepresentation of the poor in higher education is at least partly a result of this.

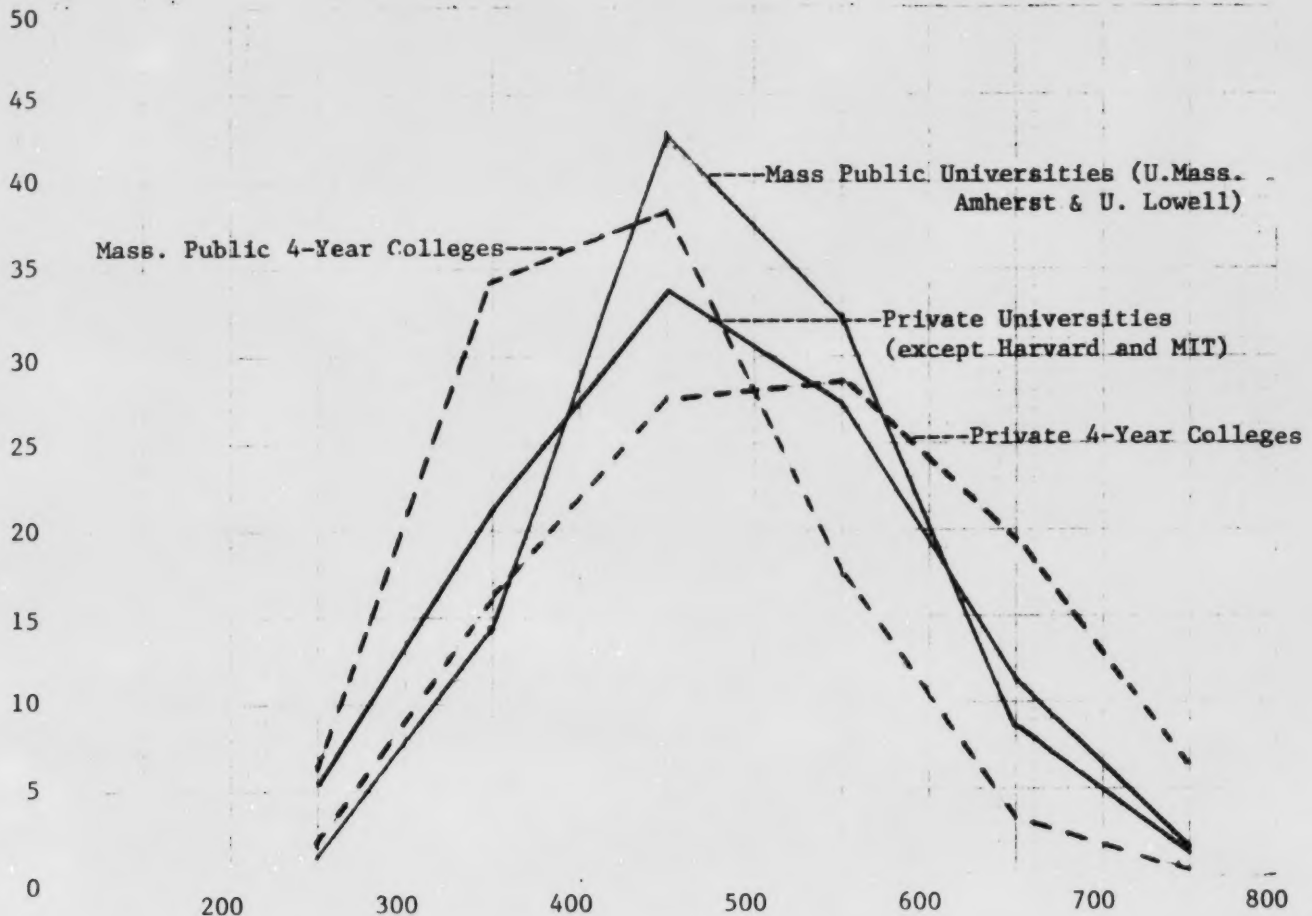
Ability

The relationship between ability and college attendance is difficult to measure effectively. For example, given the wide range of institutions to serve students, almost anyone -- regardless of ability -- can attend some institutions of higher education. Community colleges, particularly, provide access for persons of all ability levels through their policy of open admissions. Finally, in an era of "excess capacity," private institutions will also likely make standards more flexible in order to meet admissions quotas and financial requirements.

Despite this complication, ability is not an irrelevant concern, especially when considering the issue of "choice." The CEEB study cited earlier says that 16.1 percent of the respondents to their study "were not admitted to their first choice institutions." (On the other hand, evidence is presented which shows that 12 percent of those admitted to their first choice institutions did not go for financial or other reasons; admissions was not the only barrier, but it was important). Even more important is the "chill factor" that ability-related admissions produces. According to the CEEB, of those who did not apply to college, "15.4 percent said they did not think they could be admitted." Of those who had planned to go on to postsecondary education but did not, almost one-quarter did not even apply to their first choice institution, although not all for this reason.⁵⁸

FIGURE 4-A
DISTRIBUTION OF VERBAL SAT SCORES
BY INSTITUTION, 1977

Percent of
Total

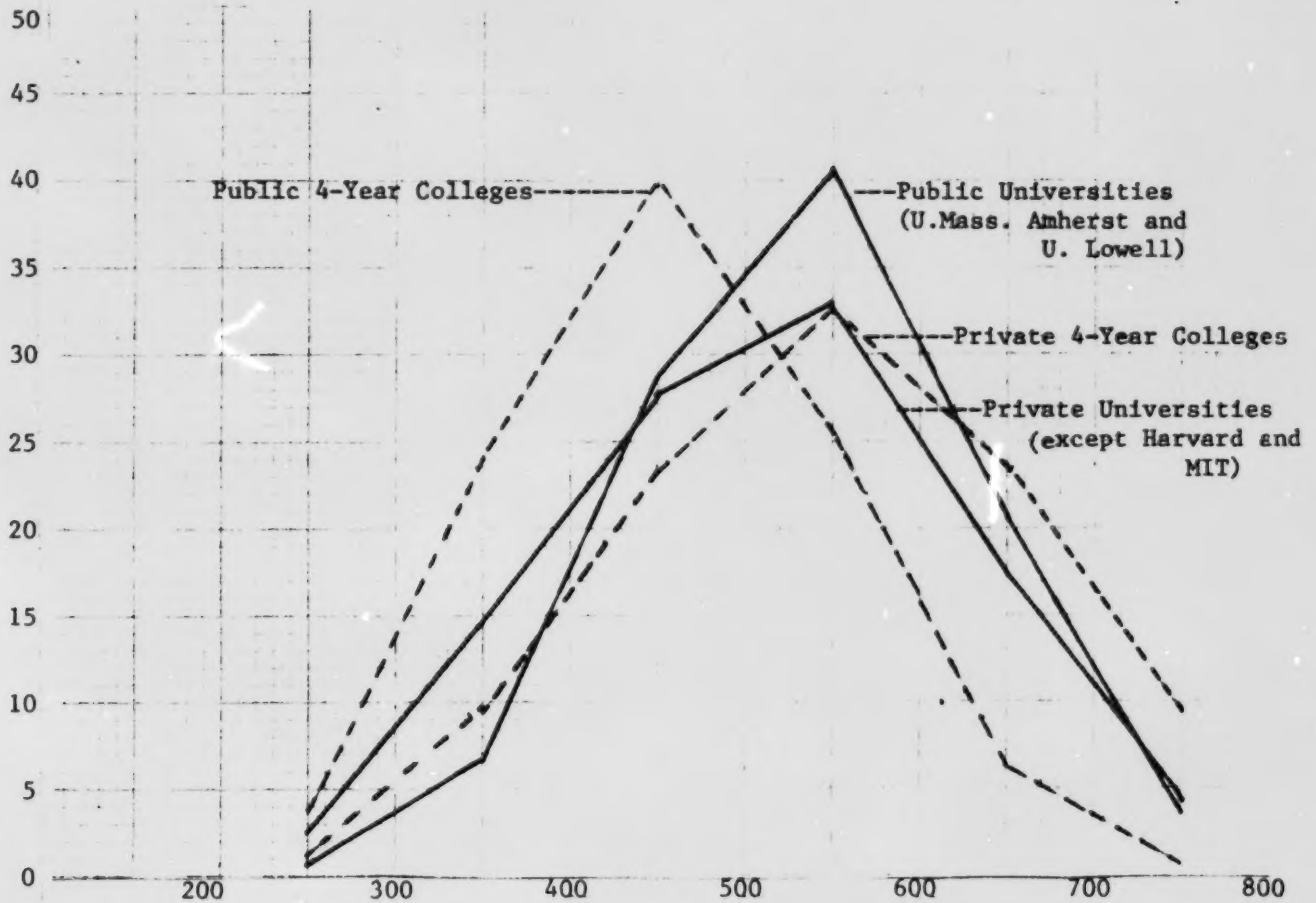


VERBAL SAT SCORE (rectangular distribution assumed)

FIGURE 4-B

DISTRIBUTION OF MATH SAT
SCORES BY INSTITUTION, 1977

Percent of
Total



MATH SAT SCORE (rectangular distribution assumed)

Thus, ability as measured by actual or perceived admissions is of at least some consequence to access: people may not attend college at all if they cannot attend their first choice school, according to the College Board. Choice is more directly affected by ability; CEEB data shows that selective admissions operate to make more people than want to attend public institutions, and less than want to go to private schools.⁵⁹ Raw admissions data also bears this out.⁶⁰

The Scholastic Aptitude Test (SAT) offers an important mechanism for assessing ability. Figures 4a and 4b, for example, show that SAT scores do, in fact, influence where a poor person ends up going to college. Figure 4a shows that 4-year public colleges have the lowest test scores and 4-year private colleges the highest scores, with the universities somewhere in between (University data is very skewed by the fact that the privates exclude Harvard and MIT and the publics include only the University of Massachusetts at Amherst and the University of Lowell. The result is that the privates seem less selective and the publics more selective than is, in fact, the case. Given the sample used, however, the phenomenon shown is that privates accommodate a broader range of students.) These results are nearly the same for Figure 4b.⁶¹

If ability appears to have at least some effect on "choice" and "access," it is not clear whether it produces an independent effect. Therefore, some determination should be made to see how ability affects the income distributions discussed. If it were a completely independent factor, then the distributions would be unaffected. If not, they will be skewed in one direction or another.

The data pertaining to this issue is based upon Estimated Parental Contributions, rather than income, and is not in precisely the form in which it would be useful. However, CEEB data does yield the following table, which is instructive.

TABLE XVII

SAT'S BY PARENTAL INCOME (1977)

<u>SAT Average</u>	<u>Mean Income</u>	<u>Median Income</u>
below 350	\$14,400	\$12,600
350 - 399	17,000	14,700
400 - 449	18,300	15,600
450 - 499	19,500	16,200
500 - 549	21,000	17,500
550 - 599	22,400	18,500
600 - 649	24,500	20,300
650 - 699	26,200	21,500
No SAT	14,600	12,000
All Students	18,800	15,700

Note: Means will often be higher than medians when measuring income, since a mean is subject to being pulled up by extremely high numbers (e.g. \$200,000). The median, by nature, is not in this danger.

Source: Massachusetts College Bound Seniors, 1977, page 15.

It is clear that SAT's, as a measure of need, are also a remarkably accurate measure of income.⁶² Therefore, ability skews our income distribution and when looking at participation rates, care should be taken to avoid blaming low participation by low-income sectors of the population on financial resources alone. As seen, both desire and ability -- though they may not have an independent effect (as the CEEB questionnaire results showed) -- will tend to disadvantage the poor. Thus, financial

aid may or may not be the answer to problems of such underrepresentation. Part of the answer to this question lies in the independent effect of financial resources on participation, and it is to this issue that the paper now turns.

Financial Resources

Ability and desire are politically problematic; for although they may correlate with income, they are resilient to change by public policy. On the other hand, the level of financial resources available can be manipulated by government to enhance "access" and "choice." Bolstering financial resources here can, as has been mentioned, positively affect ability and desire.

However, for this to be true, financial resources must be an important factor in determining whether an individual has access to higher education, and choice of institutions.

The CEEB report alluded to earlier shows that 46.1 percent of those who were not attending college "said they did not apply because they thought they could not afford postsecondary study."⁶³ Similarly, in terms of "choice," the CEEB study found that after institutional "reputation," cost considerations played an important role in college selection process. Said the report:

The second most important single reason for choosing the college at which they were enrolled was that it was not expensive, while the third most important was that financial aid made it the one that the respondent could best afford to attend. These two 'cost-related' reasons were cited as the single most important by nearly one-quarter (23.0 percent) of the respondents. 'Not expensive' was indicated as a very important reason by 29.7 percent of the respondents and 'financial aid made it affordable' by 22.6 percent,⁶⁴

Other studies in the issue tend to support this finding. For example, a recent report by the Harvard-based "Task Force on Massachusetts Higher Education" writes that "access is limited by income" with participation rates

generally increasing with family income. However, adds the 1978 Task Force report, "family income is currently less associated with choice than with access. The distribution of students among types of institutions for all income groups are strikingly similar."⁶⁵

More recently, data from the Census Bureau shows participation rates by family income for both Massachusetts students and total U.S.:

TABLE XVIII-A
PARTICIPATION RATES BY FAMILY INCOME OF
18-24 YEAR-OLD DEPENDENT STUDENTS, 1976

<u>Family Income</u>	<u>Percent of Total Attending College</u>		<u>Percent of High School Grads Attending College</u>	
	<u>U.S.</u>	<u>Mass.</u>	<u>U.S.</u>	<u>Mass.</u>
Less than \$5,000	21.4%	28.7%	44.1%	35.3%
\$5,000 - \$9,999	21.7	17.2	40.0	37.4
\$10,000 - \$14,999	28.8	27.5	44.8	36.7
\$15,000 - \$19,999	33.2	38.8	46.1	51.0
\$20,000 - \$24,999	37.0	37.6	48.1	44.6
\$25,000 - \$34,999	43.3	42.4	52.3	48.7
\$35,000 or more	<u>54.2</u>	<u>44.6</u>	<u>62.1</u>	<u>50.2</u>
TOTAL	36.2	37.7	49.7	46.6

TABLE XVIII-B

PARTICIPATION RATES BY FAMILY INCOME OF
ALL 18-24 YEAR-OLDS, 1976

<u>Family Income</u>	<u>Percent of Total Attending College</u>		<u>Percent of High School Grads Attending College</u>	
	<u>U.S.</u>	<u>Mass.</u>	<u>U.S.</u>	<u>Mass.</u>
Less than \$5,000	25.7%	27.8%	38.0%	38.3%
\$5,000 - \$9,999	15.5	14.4	22.0	20.4
\$10,000 - \$14,999	17.3	18.7	22.9	23.5
\$15,000 - \$19,999	24.2	29.8	31.1	37.6
\$20,000 - \$24,999	31.6	33.0	40.0	40.4
\$25,000 - \$34,999	41.2	41.1	49.5	48.0
\$35,000 or more	<u>52.6</u>	<u>42.9</u>	<u>60.3</u>	<u>48.1</u>
TOTAL	25.9	29.3	34.2	36.8

Source: Department of Commerce, Bureau of the Census, Unpublished Data from SIE of 1976.

The Massachusetts figures are graphically displayed in Figure 5. In general, this data suggests that:

- Participation rates increase with family income, but the correlation is far from perfect. Figure 6, for example, shows that the income distribution that results from these participation rates is more skewed toward upper incomes than are the rates we saw in Figures 1 and 2.
- Except for 18-24 year-old dependent high school graduates (top solid line), those with incomes between \$5,000 and \$10,000 seem to be participating at an unexpectedly low rate.
- Cohorts between \$10,000-\$14,999 attend college at rates which seem higher than expected if there were a linear relationship.

FIGURE 5

MASSACHUSETTS PARTICIPATION RATES (1976)

60

Percent in
Higher Education

55

50

45

Solid lines = 18-24 year-old dependents
Dotted lines = 18-24 year-olds, all

40

35

30

25

20

15

10

5

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40

INCOME (thousands) (rectangular distribution assumed)

College
High Scho

College
Total

197

196

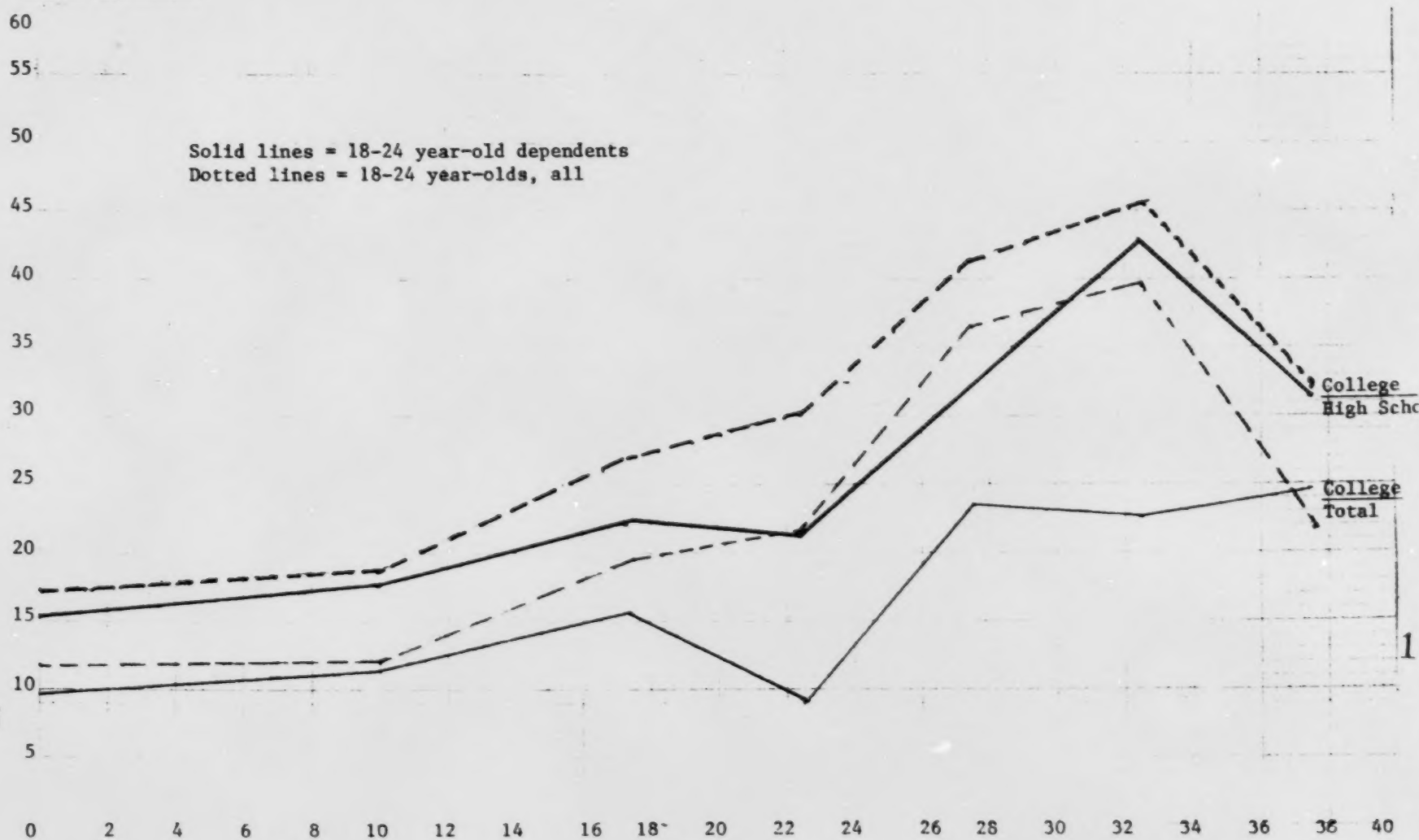
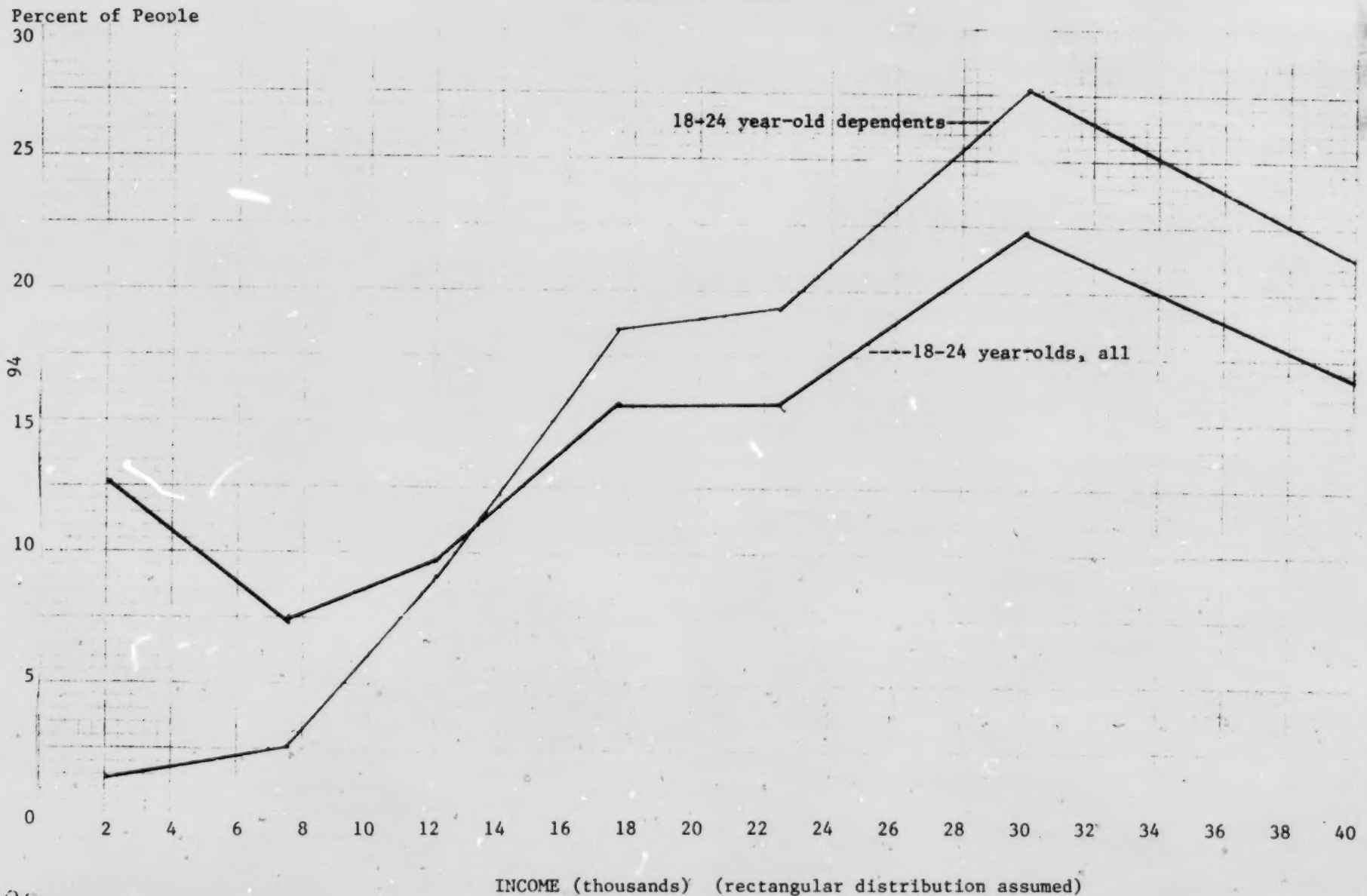


FIGURE 6

INCOME DISTRIBUTION OF HIGHER EDUCATION PARTICIPANTS,
MASSACHUSETTS 1976



- The shape of line becomes remarkably flat at the "high" income levels. However, in all cases, the national figures show far higher participation rates in the \$35,000+ group than do the Massachusetts state figures.

If data such as this indicate that enrollment rates are correlated with family income, enhancing participation through a system of financial aid may be helpful. However, the overall effectiveness of this approach to promoting full participation is problematic because of considerations concerning levels of student ability and desire; that is, complete "access" does not necessarily produce full participation. This point is ignored in developing calculations of "aggregate unmet need" and can result in exaggerated estimates.

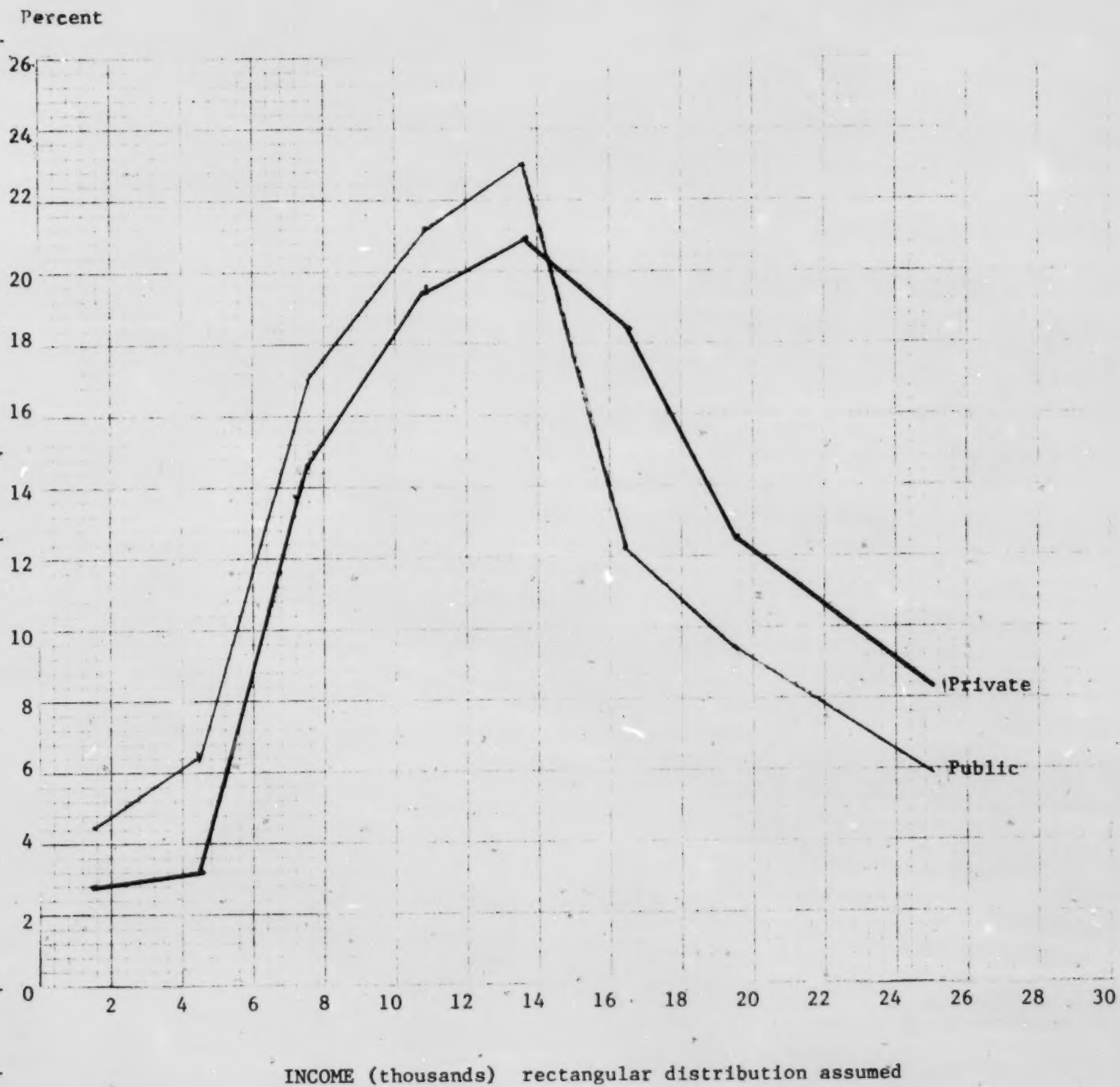
Income also appears correlated with choice according to this analysis and despite some findings to the contrary (see Task Force quote earlier). As indicated in Table XVIII, the distribution of participation rates in high-cost private Massachusetts colleges is skewed to favor the more wealthy. As such, this group is more likely to be able to attend either private institutions or public universities. Figure 7 shows these income distributions graphed using the simple (and not completely indicative) dichotomy of public vs. private. To conclude, then, this data shows that income is positively related to both access and choice. A program of financial aid, then, should have some effect but it should also be designed to address the specific idiosyncracies of the Massachusetts system.

TABLE XIX
INCOME DISTRIBUTION OF MASSACHUSETTS UNDERGRADUATES
BY TYPE OF INSTITUTION, 1976

<u>Family</u> <u>Income</u>	<u>Public</u> <u>2-year</u> <u>Colleges</u>	<u>Public</u> <u>4-year</u> <u>Colleges</u>	<u>Public</u> <u>Univer-</u> <u>sities</u>	<u>Private</u> <u>2-year</u> <u>Colleges</u>	<u>Private</u> <u>4-year</u> <u>Low Cost</u>	<u>Private</u> <u>4-year</u> <u>High Cost</u>
\$0 - \$2,999	6%	5%	3%	3%	3%	2%
\$3,000 - \$5,999	8	7	5	4	3	3
\$6,000 - \$8,999	21	18	13	16	15	12
\$9,000 - \$11,999	26	23	16	22	20	15
\$12,000 - \$14,999	23	23	23	22	22	16
\$15,000 - \$17,999	9	10	17	13	20	17
\$18,000 - \$20,999	4	9	14	10	11	20
over \$21,000	<u>3</u>	<u>5</u>	<u>9</u>	<u>10</u>	<u>5</u>	<u>15</u>
	100%	100%	100%	100%	100%	100%

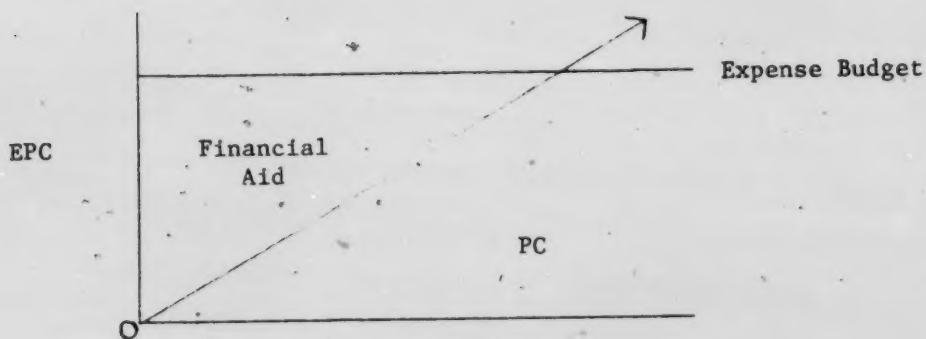
Source: Executive Budget Recommendations of His Excellency Michael Dukakis to General Court of the Commonwealth of Massachusetts for the Fiscal Year 1978... p. 7.

FIGURE 7
INCOME DISTRIBUTION OF MASSACHUSETTS UNDERGRADUATES
BY CONTROL, 1976



Net Price Model

In order to best investigate the way in which financial aid is actually distributed, consideration will be given to the net-price model developed by Dr. Kenneth Deitch.⁶⁶ The Deitch model graphically represents the relationship between expected parental contribution (EPC) and family income. Expected parental contribution is a figure which results from some needs analysis such as that performed by the College Scholarship Service (CSS).⁶⁷ It defines the way in which there is a kind of "price discrimination" practiced in higher education; a family pays the amount designated by the CSS and the rest should ideally be made up in financial aid. Assuming the fairness of the CSS formula,⁶⁸ then need is being accurately measured and financial aid is allowing a person access or choice insofar as that is possible.⁶⁹ Ideally, the Deitch EPC-IR graph, then, looks like this:



A graph such as this would tell us several things. Since the intercept is at 0, everyone who has any family income at all pays something: that "something" being determined by one's income and the slope of the line. Since the slope is constant over the entire distribution of incomes, the taxation system inherent in this hypothetical EPC-IR is not particularly progressive. Finally, this chart assumes that the financial aid is available to provide everyone with access to an institution with the hypothetical expense budget.⁷⁰

All of the above may or may not be true for a given system of financial aid. The intercepts and slopes for model trend lines have changed, often because of public pressure. In addition, they do not show to what extent financial aid is actually being made available, and therefore, to what extent access and choice are truly being guaranteed. To do this would require a more empirical form of the EPC-IR graph, one which takes into account the variations in the forms of need analysis, the different sources of funding and the limitations on availability of funding.⁷¹

However, the model is not without value for assessing the achievement of access and choice in Massachusetts for different sectors of the income distribution. Such a model also shows what effect, if any, state financial aid has on obtaining these goals. Finally, this model begins to approach some questions of the competition between the sectors of higher education by showing to what extent certain groups of schools are setting prices which discourage some students from attending. Policies to remedy such a situation might also be suggested by such a model.

As indicated in Figure 8, the model includes three components. The first is the College Scholarship Service (Uniform Methodology) line which cuts across the center of the picture and defines the EPC for most people. This could also include a line which shows the BEOG methodology; but since the CSS standards are used most often and are more representative of the needs analysis performed at the campus level, they will be used to arrive at the basic PC. The second component represents the BEOG program funds. It is located in the lower left hand corner of the graph and is limited such that the level awarded is the least of:

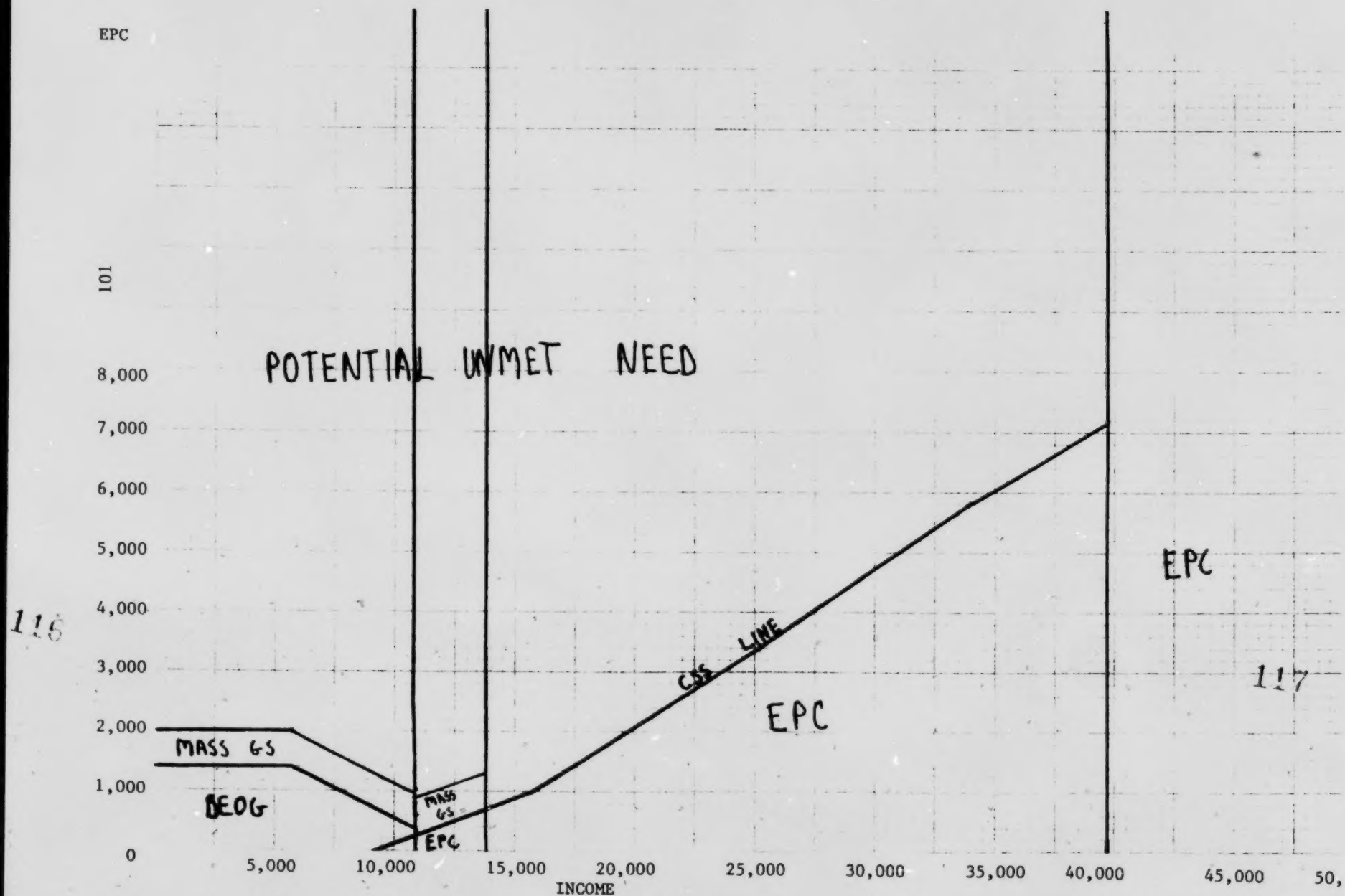
- a) \$1,400
- b) One half of the total cost (tuition and required fees, room, board, expenses)
- c) \$1,400 - PC, as PC is determined using the BEOG methodology.

Thus, assuming a school which has a total of \$2,800 or more for 1977-78 (and this would include all but the community colleges in Massachusetts), the BEOG area would appear as it does on this line.

It should be noted that upper limits on both the BEOG and the CSS lines have been defined. In 1977-78, for example, the maximum income at which one could receive a BEOG was approximately \$10,000. Similarly, CSS defined need this year as ceasing at \$39,750; for incomes above this, one was not eligible for any financial aid.

The final part of this hypothetical diagram necessitates adding in the Massachusetts General Scholarships (GS) Program. As suggested, this is only one of Massachusetts' financial aid programs; but, excluding the newly established matching grant program, it provides 97 percent of the awards and 98 percent of the funds.⁷² The program works such that CSS processes all applications and ranks them based on EPC from most to least needy. The BHE then awards grants first to the most needy, then

FIGURE 8
HYPOTHETICAL MASSACHUSETTS EPC-IR



as far down the list as available funds will allow: \$300 to students enrolling in Massachusetts state public institutions, \$600 to students enrolling in out-of-state public institutions and \$900 to students enrolling in private institutions. Awards are fully portable, but consideration will be given here only to students attending Massachusetts schools.⁷³ On this hypothetical graph, for purposes of illustration, the figure of \$600 represents the average Massachusetts grant.

In 1977-78, the maximum income attained by a recipient of a Massachusetts GS was \$13,875. This defines the empirical upper limit to our Massachusetts GS area.

By drawing horizontal lines representing tuitions at specified groups of colleges, regions of potential unmet need can be identified. These are needs which must be answered by campus-based student aid in the form of Supplementary Educational Opportunity Grants (SEOG's), National Direct Student Loans (NDSL's), College Work Study (CWS) funds, private institutional funds, or by other loan programs such as the Guaranteed Student Loans (GSL) or the Federally Insured Student Loans (FISL). When these considerations are included, some determination can be made regarding whether or not the objectives of "access" and "choice" are being met, as well as the extent to which Massachusetts state programs contribute toward these goals.

Empirical Situation

In moving from the theoretical construct to Massachusetts' empirical situation, the entire picture changes. Figures 9 and 10 show how the CSS standard relates to the way Parental Contributions are actually judged in the state, as well as the same comparison for distribution of BEOG's.⁷⁴ Figure 9 shows that parental contributions are actually judged more generously than one would expect if the CSS standards were rigidly adhered to. However, it should be noted that this does not indicate the PC's that were actually made. Figure 10 shows that average BEOG awards varied greatly from the possible awards, as judged by standards in federal regulations. This could be the result of half-cost provisions, or of actual calculation of assets, etc. As noted, Massachusetts General Scholarships vary according to whether the recipient attends a public or private institution. Knowing the nature of this variation plus CEED data regarding the distribution of campus-based funds (SEOG, CWS, NDSL), a more accurate empirical model can be developed.

To do this requires dividing institutions into groups. Public institutions divide neatly into universities, state colleges and community colleges; but the divisions of the private sector are more arbitrary. The Report of the Select Committee for the Study of Financial Problems of Private Institutions of Higher Education in the Commonwealth of Massachusetts divided private institutions into six groups: (1) two-year institutions; (2) specialized colleges; (3) non-specialized colleges -- lower expenditures per student; (4) non-specialized colleges -- higher expenditures per student; (5) universities except Harvard University and the Massachusetts Institute of Technology, and (6) Harvard and M.I.T.⁷⁵ For each of the groups delineated

FIGURE 9
CSS STANDARDS AND EMPIRICAL DATA

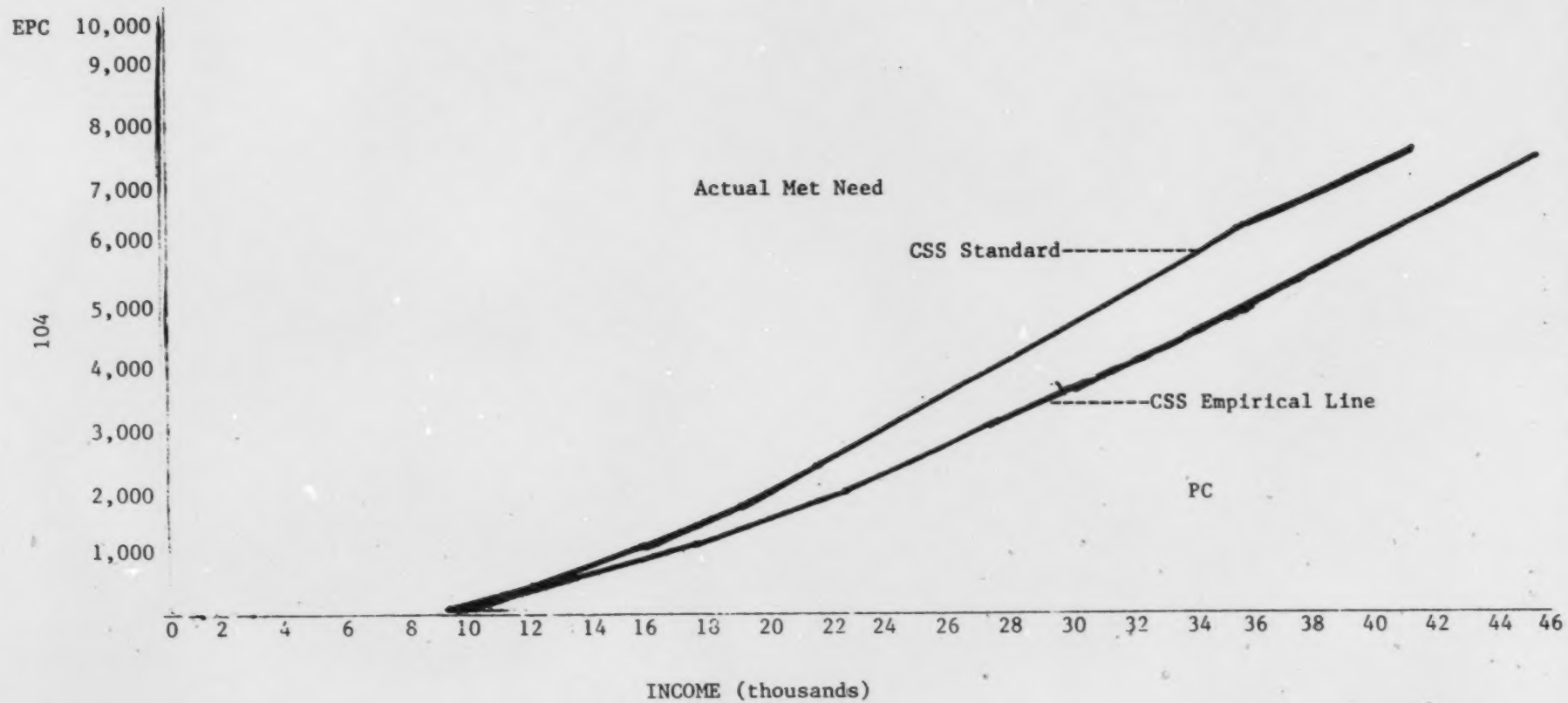
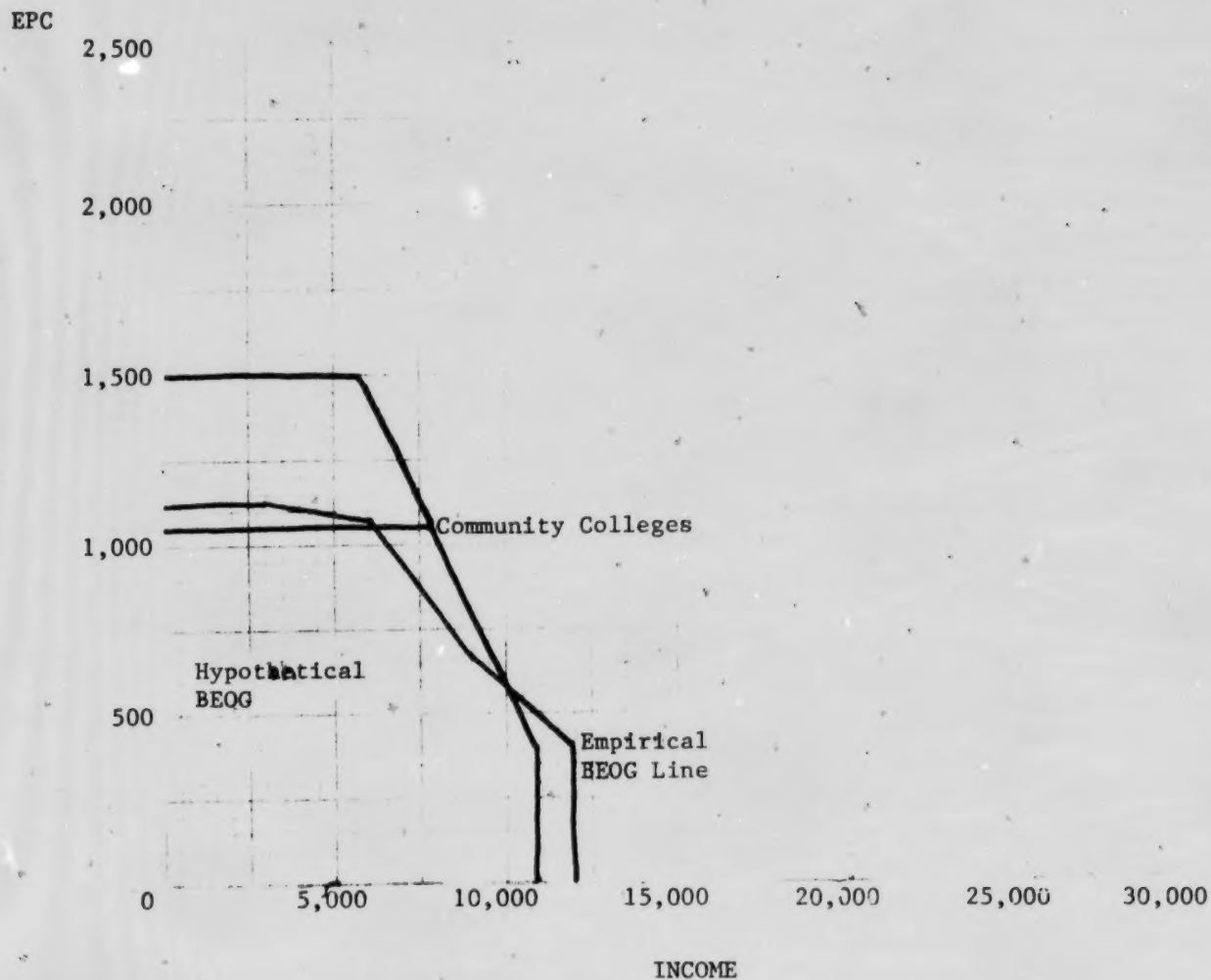


FIGURE 10
BEOG: ACTUAL VS. THEORETICAL



above, a computation can be made of average tuitions, resident expense budgets and commuter budgets for 1976-77, the year for which data presented here is relevant. The results of these computations are shown in Table XIX below:

TABLE XX

TUITION, RESIDENT EXPENSE BUDGETS AND COMMUTER BUDGETS FOR
GROUPS OF MASSACHUSETTS INSTITUTIONS, 1976-77

	<u>Tuition</u>	<u>Resident Expense Budget</u>	<u>Commuter Expense Budget</u>
<u>Public</u>			
Community Colleges	\$373	\$2,838*	\$2,092
State Colleges	681	2,840	2,716
Universities	558	2,915	2,406
<u>Private</u> (see groups above)			
Two-Year	2,460	4,907	3,979
Specialized	2,694	5,560	4,512
Non-Specialized Low-Cost	2,437	4,698	4,118
Non-Specialized High-Cost	3,520	5,923	4,841
Universities	3,399	5,879	4,809
Harvard and MIT	4,125	7,475	6,600

* This number is irrelevant for all practical purposes.

Source: Elizabeth W. Suchar, Stephen H. Ivens and Edmund C. Jacobsen,
Student Expenses at Postsecondary Institutions, 1976-77 (College
Scholarship Service of the College Entrance Examination Board)

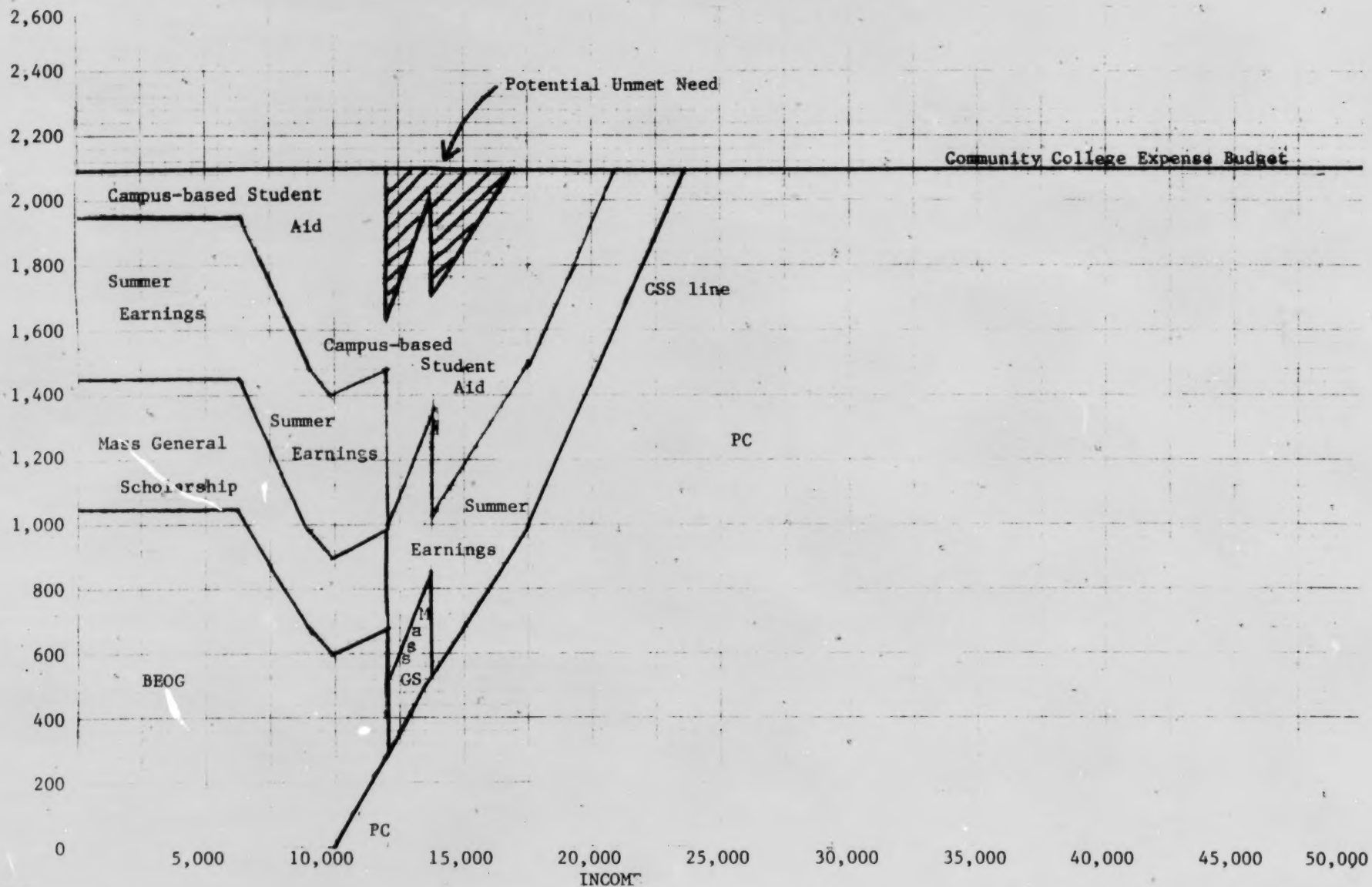
Except for the case of the community colleges, the middle figure -- resident expense budgets -- will be used for measurement purposes. In doing this, the high cost colleges will be combined with most of the universities (since their expenses are so similar).

Community colleges can be considered as the primary means of entry into the system of higher education: the lowest level at which one can be assured of access. Because of their significance in this respect and because they are the only institutions to which the half-cost provisions of the BEOG apply, they will be considered first. The results can be seen in Figure 11, the first complete empirical EPC-IR. As indicated above, the expense budget horizontal line is based on calculated commuter budgets.

The first thing that strikes one about Figure 11 is the irregularity of the lines; they are jagged due to the overlapping of the various programs and analyses: the BEOG area overlaps with the CSS curve, which overlaps with the Massachusetts General Scholarship area, etc. What this shows is that these programs combine so that pricing in the community college, and therefore "bare access," is quite uneven. Second, except for a very small (striped) area, there is not a great deal of unmet need in the system -- when one combines BEOGs, Massachusetts General Scholarships, summer earnings and campus-based financial aid, almost everyone can afford to go to a community college without taking loans. And with loans, which are moderately cheap under the Guaranteed Student Loan (GSL) or Federally Insured Student Loan (FISL) programs, one could readily "afford" attending community and state colleges -- no matter what the income level. According to this graph, the largest loan one would have to take per year is about \$500, unless loans are also used in substitution for a parental contribution, which does

FIGURE 11

EPC-IR FOR MASSACHUSETTS COMMUNITY COLLEGES
1976-77



occur.⁷⁶ This, of course, assumes the fairness of the CSS curve and of the \$500 expected contribution from the student's summer earnings.⁷⁷ However, it should be noted that the area for which there is some potential unmet need, before loans, corresponds to an area of the income distribution between \$12,000 and \$17,000 of family income. Such an area includes about 25 percent of the American population. Though relatively minor in this graph, this unmet need is indicative of the so-called middle-class "squeeze."

Campus-Based Aid

Before moving on to the other public and private institutions in Massachusetts, a word is in order about campus-based student aid. These programs include SEOG, NDSL and College Work Study. As designed, they are used by institutions to help make up for potential need, after student-based grants (like BEOG or the Massachusetts General Scholarship), parental contribution and self-help from summer earnings. The figure used in this paper reflects the "unduplicated total" package of these three programs; that is, the average package received by a student. Of course, this ignores the significant differences in nature between grants, loans and work-study. However, since it appears that the programs are inversely related -- one program is likely to supply less money to a student who is getting more from another program -- then the package concept becomes more useful for an EPC-IR graph. (This is why adding together averages from all three programs does not yield total package average).

However, it would be significant if grants, loans and work-study were awarded differentially according to income. For example, it would seem more regressive to award relatively more loans and less grants to poorer people. Figure 12 shows the income distribution of the awards (ignoring the dollar amount of each award) for the public sector. It shows that loans and work-

FIGURE 12

INCOME DISTRIBUTION OF CAMPUS-BASED AID

Percent 35

30

25

20

15

10

5

0

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

INCOME (thousands) rectangular distribution assumed

Mass Public Institutions
(1975)

SEOG

NDSL

CWS

study are distributed almost equally, and SEOGs are distributed in a relatively more progressive fashion. The figures for the private sector show remarkably similar shape, though the entire distribution is more skewed in the direction of upper-income families.

In terms of the average dollar amounts of grants, loans, work-study and packages, Table XX shows that they are distributed in an amazingly "flat" fashion. That is, the amounts of grants vary relatively little across income groups. The numbers are based on private, public and proprietary institutions and the totals include independent undergraduates and graduate students.

TABLE XXI
AVERAGE AWARD, BY INCOME OF CAMPUS-BASED AID PROGRAMS
MASSACHUSETTS 1976

<u>Program</u>	<u>Total</u>	<u>\$0 - 2,999</u>	<u>\$3,000- 5,999</u>	<u>\$6,000- 7,499</u>	<u>\$7,500- 8,999</u>	<u>\$9,000- 11,999</u>	<u>Over \$12,000</u>
Total package	\$1,057	\$1,007	\$1,054	\$1,010	\$1,008	\$1,014	\$1,022
SEOG	572	601	643	625	608	606	567
College Work Study	755	741	749	684	738	703	676
NDSL	761	641	664	682	687	721	799

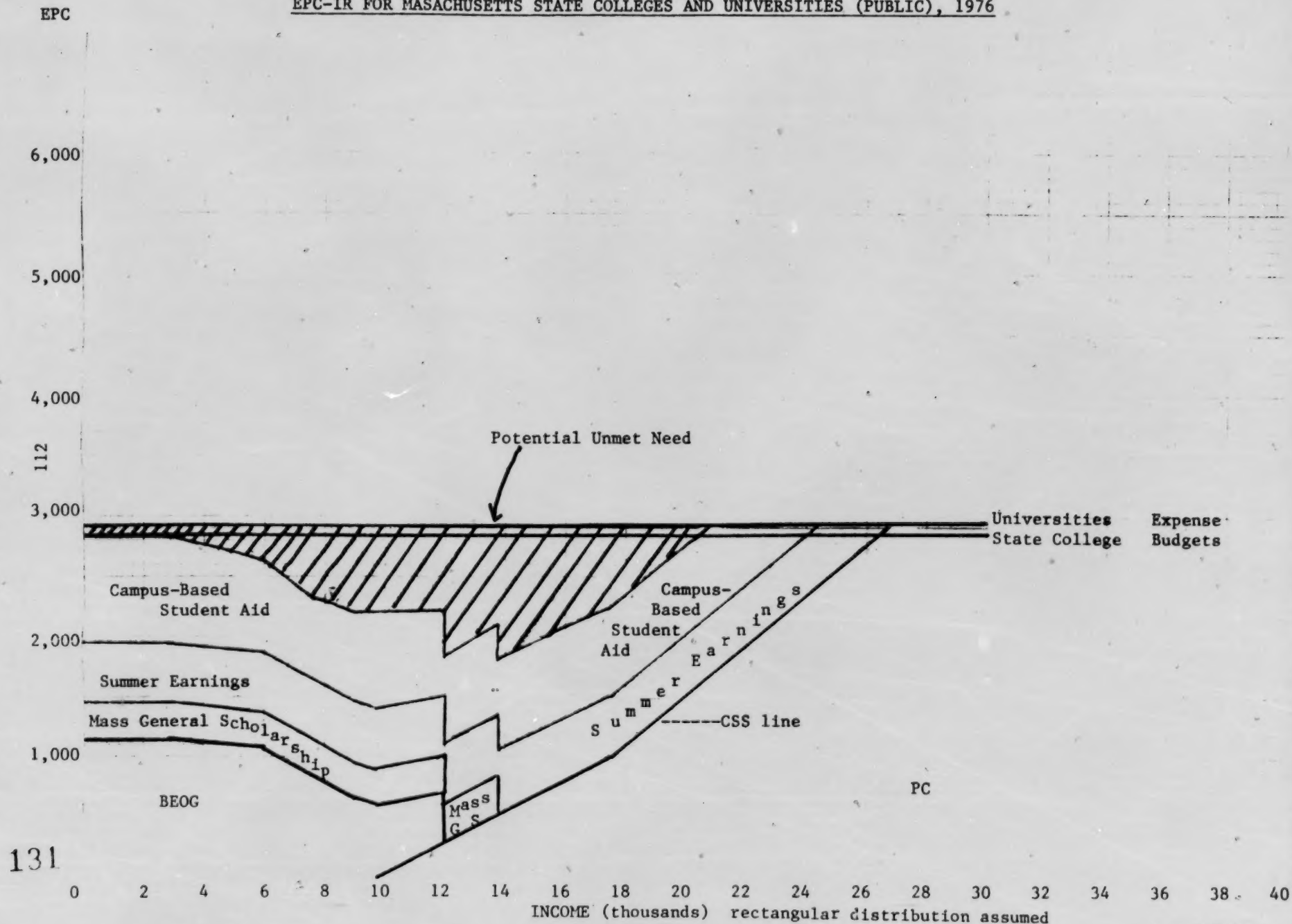
Source: Unpublished 1976 Data of the College Entrance Examination Board

Public Institutions

Figure 13 is the complete EPC-IR for the public institutions other than community colleges in Massachusetts; Figure 14 is the comparable model for the private sector.

As indicated in Figure 13, a modest amount of "choice" is available to attend a state college or university as well as a public community college with some sacrifice. However, the area of unmet need is substantial. In terms of the state colleges, for example, students from families with incomes of approximately \$3,000 to \$20,000 will have to either borrow

FIGURE 13
EPC-IR FOR MASSACHUSETTS STATE COLLEGES AND UNIVERSITIES (PUBLIC), 1976



money, work or obtain some kind of institutional aid to afford attendance. The narrow difference in total costs between the state colleges and the universities is enough to extend the area of potential unmet need back to the \$0 income level and up to about \$21,000.

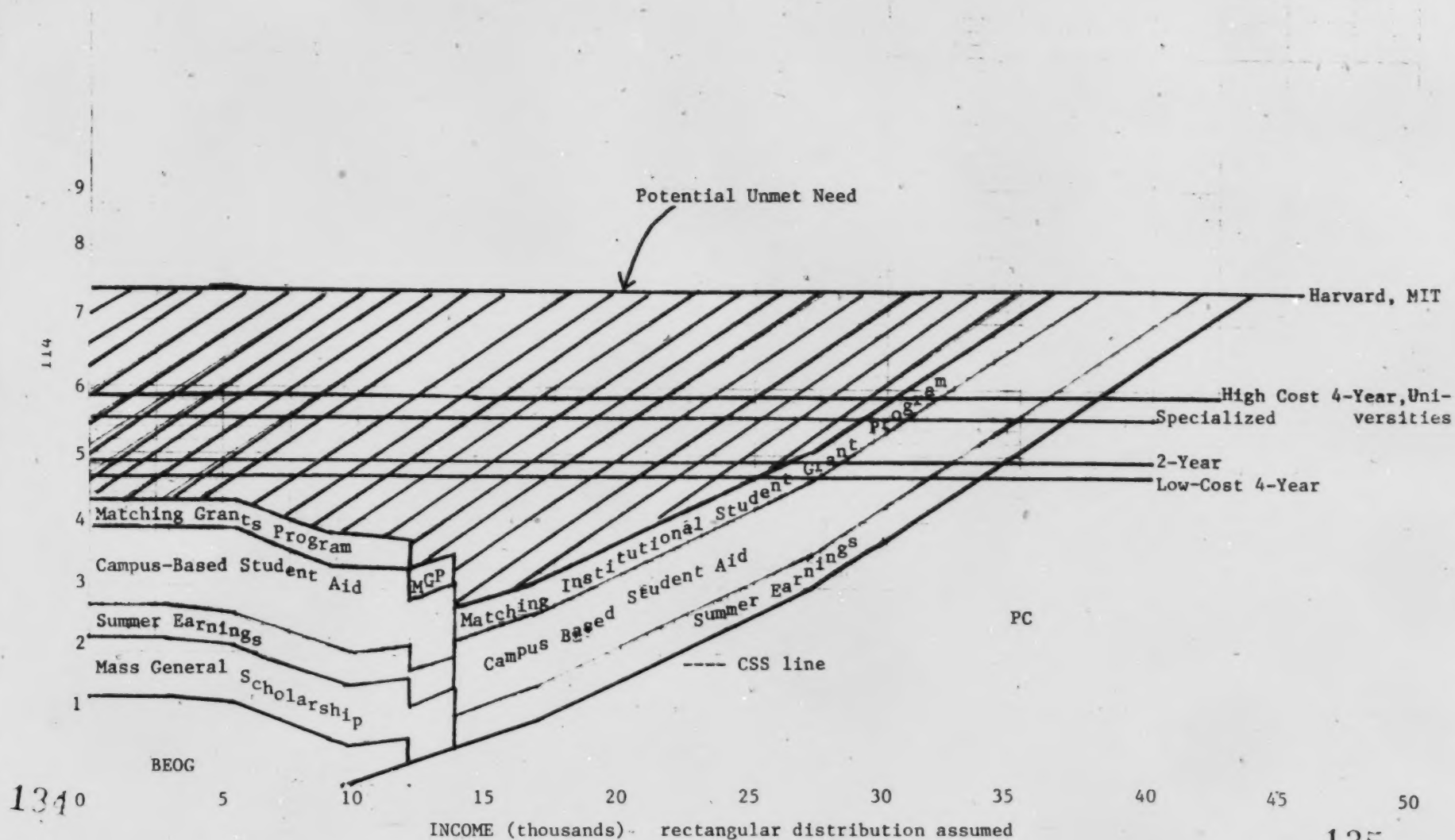
Looking at this diagram, the first glimpse of what has been called the "middle-income squeeze" can be seen. Generally, large amounts of potential unmet need lie within the area between \$8,000 and \$18,000 of income. Most unmet need occurs at \$13,750, where a person, though not impoverished, no longer qualifies for a BEOG or a Massachusetts General Scholarship. The unmet need for such a person is over \$1,000 per year. Since institutional scholarships in the public sector are rare, a person such as this will either sacrifice (above and beyond the sacrifice demanded by CSS) or take a loan. Barring tuition or grant increases, then, such a person will graduate and find him/herself in at least \$4,000 of debt. This level of indebtedness contributes to the problems of loan default and of limitations upon access or choice.

Private Sector

In the private sector, tuition gaps are even larger. Despite an increase in the Massachusetts General Scholarship to \$900, as well as a growing program of matching grants to private institutions by the state government, potential unmet need becomes significant for people with incomes of less than \$25,000. This represents almost three-fourths (72 percent) of Massachusetts families with 18-24 year-olds.⁷⁸ In analyzing Figure 14, we should carefully delineate which groups of institutions we are considering. The low-cost 4-year and the 2-year colleges are the least expensive private institutions; but even so, a person would have to come from a family with an income of over \$33,000 per year in order to

EPC
1000's)

FIGURE 14
EPC-IR FOR MASSACHUSETTS PRIVATE INSTITUTIONS, 1976



afford them without financial aid. Given the available aid, unmet need gets as high as \$1,900 per year. This \$1,900 figure shows that without any further institutional aid a student could not afford the cheapest private college even with a FISL or GSL loan. This is because, although the \$1,900 is within the annual borrowing limit of \$2,500 per year, the \$7,600 which would accrue over four years (obviously this does not apply to the two-year colleges) exceeds the undergraduate borrowing limit of \$7,500. Thus, further sacrifice by the student in terms of unsubsidized loans or "unaffordable" contributions, or additional aid by the institutions would be necessary to meet costs. The \$1,900 figure is the maximum here, but in all cases below about \$25,000 of income some loans would be necessary.

As for the specialized schools, universities and high-cost 4-year private institutions, they become much more difficult to afford. Even with loans, students with incomes of under \$25,000 per year would exceed borrowing limits in order to afford these schools without institutional aid or other self-help. Clearly, the maximum unmet need of \$3,000 per year is problematic both in terms of borrowing \$7,500 (over 4 years) at 7 percent interest and the additional \$4,500 at market interest rates. Finally, students for whom financial aid made bare access to community colleges possible (those with incomes of less than \$12,000 per year) find that higher education is limited to the public sector, especially given the tight credit which banks will apply to them given their seemingly high rates of default.

Harvard and MIT appear unaffordable to people with incomes of \$30,000 or less. Fortunately, these institutions are wealthy enough to provide significant institutional aid. For example, suppose a student who has a \$14,000 family income wants to attend Harvard. His potential unmet

need for one year will be approximately \$4,700. If he borrows \$1,875 in a GSL and his parents borrow another 12 percent loan of \$1,000, he still is \$2,000 short of affording Harvard. This is a burden to be imposed upon parents, student and university, or on the taxpayer.

Summary: Findings

Collectively this data suggests that virtually all Massachusetts residents enjoy access to higher education. However, as this analysis has shown, the attainment of access is:

- Insured more by the low expenses associated with attending a community college than by virtue of any state program of student financial aid;
- Obtained, for the poor at least, more by the larger federal programs (i.e., BEOG) than by virtue of any Massachusetts state program; and
- That loans are a crucial ingredient even of a package for students in community colleges.

Some choice among public institutions is also available for some. By securing institutional aid or additional student or parent contributions, persons from nearly all income brackets can afford to attend a state college or university. The fact that this will require some sacrifice, especially for people in the income ranges of \$8,000 - \$18,000, is testimony to the "middle-class squeeze." Again, access to these institutions is much more a function of relatively low tuition and of federal programs than it is of the Massachusetts General Scholarship Program, which in these cases does not even provide enough money to cover tuition.

Finally, "choice" among both public and private institutions is far more problematic. For many people, and for many institutions, substantial sacrifice is necessary in order to attend even the least expensive private college. There is a noticeable squeeze on the middle areas

of the income distribution, although in this case the Massachusetts General Scholarship Program has a greater impact (and in fact pushes the point of maximum unmet need further up the income distribution, relative to the public sector) than it had in the public sector. In addition, the program of Matching Grants further alleviates some expense for all students in need, although it remains too small to have a very significant impact.

However, the large amount of potential unmet need in the private sector, and the moderate amount in the public sector, raises serious questions for higher education in Massachusetts, as we enter an era of excess capacity and state fiscal stringency. On the one hand, if the institutions are to survive, they will have to attract students; and if they are to attract students, they probably will have to contribute larger amounts of institutional aid in the future. This will put a strain on their already tight budgets, a strain which they may or may not be able to withstand. Second, if this pressure becomes too great, and if institutional funds diminish, then access to the private sector may be severely restricted. Finally, potential unmet need puts pressure on loan programs to temporarily defray higher education costs. In view of the problems of default in current programs, the current level of borrowing authorized by program guidelines, and the issue of whether or not loans are a feasible option for 18-24 year-olds, the idea of depending too much upon loans may be called into question.

In general, then, the Massachusetts state student aid program is too small to have any real effect except for those wishing to attend a public community college; too small in terms of level of individual awards to ameliorate potential unmet need, and too small a program to alleviate the

financial squeeze on students from the middle-class families seeking a reasonable choice among public and private institutions.

State-Federal Fit

There does not appear to be any well-tailored "fit" between state and federal student aid programs. The Massachusetts General Scholarship Program, for example, was developed prior to the BEOG program and has not been modified in any significant way to coordinate its activities with federal programs. That is, the Massachusetts General Scholarship Program was not conceived initially for, and remains ineffectual at, "filling in the gaps" resulting from limited BEOG award funds. Coordination between state and federal programs is, of course, not easy to achieve, since expanding state programs to meet unmet needs (through a system of "guaranteed equity") would require that more money be spent for educational purposes. This would be politically difficult in an era of fiscal stringency. In addition, the current levels of funding make the BEOG a much larger program than the Massachusetts General Scholarship; without vast increases in funding, the BEOG schedule will continue to dominate the net-price structure of higher education in Massachusetts for those with incomes below \$20,000.

As for the State Student Incentive Grant program, although it provides some political clout for those Massachusetts politicians who wish to increase state financial aid, it is not substantial enough either to provide much aid or to induce substantial increases in state student aid funding. At present, the SSIG money simply adds dollars to the Massachusetts General Scholarship Program so that the program reaches slightly higher into the income distribution. It does, then, provide some marginal, but

insufficient, financial help to the middle class by virtue of the procedures employed in awarding these scholarships.

Limitations to this analysis are clear. It does not consider the potential impact of new programs which are currently possible. For example, funding for the Middle Income Student Assistance Act now appears likely. If funded and implemented, it will modify the overall financial aid situation for state residents. Similarly, this analysis concentrates on financial barriers to attending college and, as such, ignores the impact of other factors affecting access. For example, the fact that community colleges in Massachusetts have a limited capacity to absorb students certainly affects access, a fact which simply does not fit into this analysis. However, within the limited range of issues addressed by financial aid programs, the above general findings seem clear.

Program Alternatives

In considering future program alternatives for improving "access" and "choice," the four options noted here are indicative of the broad range available. These include (1) maintaining the status quo, (2) concentrating future student assistance growth in the Matching Scholarship Grants Program, (3) increasing public tuition and using the additional revenue generated to help fund a unified need-based program, and (4) initiating a supplemental new program of capitation grants to induce private institutions to enroll more state residents.

As for the first option, maintaining the status quo, it enjoys the strengths of producing no increased costs to the Commonwealth: it would not require any additional political confrontations among key interest

groups to develop a new consensus; and, as suggested by the data here, the state has essentially fulfilled its fundamental objective of providing its residents with access to some form of higher education. On the other hand, doing nothing ignores the significant limitation of failing to provide nearly three-fourths of state students with a reasonable choice among public and private institutions. Given the likelihood of tuition increases in the future among private institutions, providing residents with "choice" will be even more seriously constrained.

The alternative of allowing minimal increases in the Massachusetts General Scholarship Program and concentrating most future growth in the Matching Scholarship Grants Program offers a variety of strengths. For example, this approach contributes to the "choice" objective by offering direct financial incentives for the more costly, private institutions to develop financial aid packages for Massachusetts residents. Since there is already substantial access to public higher education, this would concentrate marginal increases in state funds into areas where need exists. Additionally, this strategy helps ameliorate the lack of "fit" between various state and federal aid programs by providing substantial flexibility at the institutional level for financial aid officers to use state funds for tailoring student assistance packages to meet individual needs.

However, this option is not without limitations. Because the program allocates funds to institutions on the basis of institutional aid awarded to Massachusetts residents, it tends to reward institutions that may need help the least. For example, a recent analysis of the state allocations shows Harvard University receiving one of the largest funding

allotments because of its capacity to offer local residents scholarships. A similar drawback concerns the limited state control over the use of funds. As noted, only half of the state funds must be used for assisting Massachusetts residents; the remaining half may be used without limitations by the institutions involved. In an era of limited public resources, this lack of public accountability and control could become a source of legislative concern as the program grows. Finally, pursuing this option would require additional state funding.

A third possibility involves collapsing the General Scholarship and Matching Scholarship Grants programs into one need-based program. Under this proposal, all public tuitions would be increased by \$300 and the revenue allocated to provide additional funding for need-based grants for students attending both public and private institutions. State grants would supplement BEOG's with the maximum individual award being \$2,500. Advantages of this approach include producing a better "fit" between federal and state student assistance programs, limiting unnecessary subsidies (low public tuitions) for those not requiring it, and generating additional revenue for student aid. On the other hand, maintaining low public tuitions is considered by most Massachusetts education officials to be the best approach for insuring access to higher education; increasing public tuitions will likely be unpopular among the general public and it could lead ultimately to lower rates of participation among the low income groups who fail to apply to any institution because of perceived high costs.

A fourth alternative would be to create a new capitation grant program that provides financial incentives for private institutions to enroll more state residents. Under this approach, private institutions in Massa-

Massachusetts would receive \$1,500 from the state for each additional state resident enrolled above an established base number. The base number for each institution would be determined by calculating the mean number of full-time state resident students enrolled over the past three years. Thus, for example, if institution "A" calculated its base number to be 700, it would be eligible for a \$1,500 grant from the state for each Massachusetts resident enrolled beyond 700.

The strengths of this option include creating a financial incentive for private institutions to divert more institutional student aid resources for enrolling Massachusetts residents; it would likely provide some increase in choice among moderate- and middle-income students (who might not otherwise have been offered institutional aid); and the state does not incur any increased costs unless eligible institutions actually increase services to local residents.

In addition to these advantages, however, this course of action is not without drawbacks. It offers the potential of some institutions recruiting students with inappropriate backgrounds and interests in order to receive state revenues; it could lead to weakening the diversity of students, drawn from a national and international base, that distinguishes many in Massachusetts' private sector; and it would require additional state revenue if successful.

Recommendations

Despite the importance of assessing strengths and weaknesses of program alternatives such as those above, the fundamental policy issue involved is a political question. It concerns the extent to which the state is willing to commit additional resources, or reallocate existing revenues, to meet its student aid objectives. The chief constraint is

not program conceptualization, for the technical know-how is available to deliver financial aid to any target population identified. Rather, the central issue concerns developing the consensus necessary for change among the Legislature, Governor, and key interests representing public and private institutions. And that is politics.

Therefore, the recommendations put forward here are structural and process-oriented. They seek to develop an organizational structure that will facilitate clarifying the policy alternatives involved while improving the efficient delivery of existing services. Specifically, the recommendations put forward for consideration include:

- Separate the financial aid responsibilities from the BHE;
- Create a new Massachusetts Scholarship Commission; and
- Centralize the delivery of all state-funded student aid programs in the new agency.

The proposed commission would be an autonomous agency, governed by a 15-member lay board appointed for seven-year terms by the Governor. No person with an active institutional affiliation would be eligible for appointment to the commission. It would be supported by appropriate civil service professional/clerical staff, headed by an executive officer who serves at the pleasure of the commission. The purpose of the new body would be, as noted, to administer all state-funded scholarship programs. In addition, it would gather data on an ongoing basis to

- (1) identify levels of attainment for meeting state student aid objectives,
- (2) make periodic reports to the Governor and Legislature regarding unmet student needs, and
- (3) generate annual funding recommendations as well as other legislative proposals when necessary for improving the effective and efficient delivery of Massachusetts student aid programs.

Although this course of action will require some increased capital outlay for the state and although it will not by itself insure increased "access" and "choice," it does offer several noteworthy strengths. At the commission level, for example, the proposal would facilitate the recruitment and appointment of commissioners who are interested in financial aid issues; and once appointed, they would be able to focus their energies on this issue. Under the existing organizational structure, BHE trustees must spread their attention over a broad range of governance, planning, and coordination issues concerning Massachusetts higher education. Student financial aid is therefore just another competing interest -- even within its own organization.

One outcome of this diffusion of interest and competing needs can be seen at the staff level where those responsible for administering the state student aid programs lack the personnel necessary for processing applications/awards in a timely manner. In fact, the process is generally seriously late and a source of concern among students and institutions. Generally, BHE priorities have focussed on securing staff needed to meet statewide planning and coordination responsibilities. Thus, the agency's leadership has devoted much of its legislation agenda to filling these deficiencies while placing a lower priority on student aid staffing needs. As such, this issue does not receive adequate organizational or legislative attention. Finally, central to this course of action, the proposed commission would serve as a focal point for placing the financial aid issue on the political agenda; for researching and clarifying the policy alternatives available; and for assisting the legislature to make informed choices on this political issue.

VII. CONCLUDING OBSERVATIONS

This analysis examines the issues of governance and student financial aid within the state's emerging social and political context. It suggests that reorganizing Massachusetts public higher education and meeting student financial aid needs are chiefly political issues and are being considered within a framework of (1) a relatively recent rapid expansion of public higher education, (2) projected enrollment declines, and (3) the prospect of increased fiscal stringency -- all of which result in increased competition for students and state financial resources, both among and between Massachusetts' public and private institutions.

Although the authors recommend that the BHE be abolished and a new, stronger statewide coordinating commission be established, the proposal is based on perceived political limitations to a more bold alternative, rather than on its intrinsic merits. As such, it is perhaps more symbolic than substantive. Additionally, it is put forward as an interim, short-term proposal that is the "least objectionable" and therefore perhaps politically possible. Substantive reorganization will likely not occur until midway through the 1980's when the state's changing demography and political concerns for reducing public expenditures will no longer be able to support maintaining the existing governance structure and system costs.

In considering the broader issues of educational decision-making in an era of contraction, the alternative of strengthening state legislatures' capacity for making informed public choices seems to merit further consideration by the Sloan Commission. The proposal was not recommended here because of Massachusetts' legislative ethos and the politics of patronage. On the other hand, it seems both appropriate and likely that state legislatures generally will play a more important role in higher education during the next decade as (1) public institutions seek to hold on to the gains made

during the 1960's, (2) competition for the public dollar increases, and (3) public pressures continue to mount for reducing state expenditures. Similarly, since educational issues of the next decade will include which institutions survive and how, rather than which institutions/systems will grow at relatively faster rates, the perceived vested interests will be significantly more important and decision-making processes more politically charged. By necessity, these issues will likely be brought before state legislatures -- either formally or informally -- by institutions wishing to prevent budget cuts or closings. In short, regardless of the legal mandate given to educational structures such as statewide coordinating councils, state legislatures will become more likely to serve as a court of last resort in future years -- whether they want to or not -- because of the high stakes involved.

In general, the authors believe that not only will state legislatures continue to serve in this capacity, but that they should. Expenditure levels for public education is a political issue, and these bodies are best suited for sorting out the public interest. At issue, then, is whether or not statewide coordinating committees such as the BHE or the various "1202 Commissions" can play an effective role in resolving the issues involved. Do they have the political clout to effectively influence legislative deliberations as politically sensitive as the possible closing of a public institution? Should they? Is the ineffectiveness of the BHE in Massachusetts symptomatic of only Commonwealth vicissitudes, or of a more fundamental conceptual limitation? What should the federal role be for facilitating informed public choices? Has it focussed too much on generating ineffective, bureaucratic decision-making structures? Is there a federal role to play in strengthening state legislatures or institutional-based resources to

provide comprehensive data and analysis for state legislatures? Questions such as these emerge from this brief study and may merit further investigation by the Sloan Commission.

In the area of student financial aid, the report finds that because of private institutions' economic importance to the state's economy, financial aid objectives are multi-dimensional. That is, the objectives of providing residents with "access" to higher education and a reasonable "choice" among institutions have significant implications for providing indirect state subsidies to the private sector. In general, applying a "net price" model to Massachusetts families of different income brackets shows that the objective of "access" has been largely achieved while providing reasonable "choice" has not. This appears due to low public tuitions and federal BEOG's, rather than to the state student aid programs. The analysis finds, as noted, that persons from families earning less than \$25,000 per annum -- or nearly three-fourths of potential Massachusetts students -- confront significant potential unmet need when attempting to attend a private institution. This occurs because of (1) high tuition fees, (2) state scholarship award levels being too low, and (3) federal assistance programs being designed chiefly for "access" rather than "choice."

Because the appropriate level of public scholarship aid for Massachusetts is also a political issue and will ultimately be decided on the basis of competing interests, this analysis does not propose increasing state appropriations to any given amount. Similarly, due to varying definitions of potential "unmet need" and the absence of adequate data, recent estimates of the figure have been too broad (ranging from \$50 - 100 million) to be helpful. What this report does recommend is improving the process for delivering existing aid in a more efficient manner and clarifying the educational and economic

implications of student aid issues before the state legislature. The vehicle for this would be a new Massachusetts Scholarship Commission.

In general, the authors believe that in Massachusetts, a state where private higher education represents a significant industry, the objective of providing "choice" should be viewed in a context that includes both educational and economic dimensions. That is, to view the issue simply in terms of maximizing individual preferences eclipses the significant economic impact on the state of Massachusetts institutions of higher learning. In this setting, then, the desirability of providing "choice" could be viewed chiefly as a state issue, rather than an item for federal action. Since the state receives economic benefits (e.g. jobs, revenue from students, state income tax from education-related employees) from the private sector, it does have an economic interest in its overall health.

However, is such a view too parochial? Should the same hold true in other states? To what extent is there a national interest in preserving educational diversity? Research centers? Academic excellence? What should the federal role be for facilitating "choice"? Should there be a new national entitlement to insure "choice" as existing federal programs contribute to "access"? If so, how would such a program be financed? In fashioning student assistance programs for the 1980's, who should be the chief federal client? Individuals, through the development of a "super-BEOG"? States, through a revised ESIG program that "floats" to respond to statewide estimates of "unmet need"? Or institutions, resulting in direct federal subsidies to promote and preserve national centers of excellence? Or, still yet, some combination of the above? What is clear from the Massachusetts study is that there is no effective coordination between state and federal student

assistance programs, resulting deficiencies already noted. Under what circumstances, how, and at what level (state or federal) action should be taken to clarify student assistance objectives, coordinate programs, and fund them, may merit further consideration by the Sloan Commission.

NOTES

FOOTNOTES

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4. Op. Cit., p. 98.
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7. Father Michael Walsh, interview, Aug. 18, 1978.
8. Kevin Harrington, interview, Aug. 10, 1978.
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10. Op. Cit.
11. Office of the Secretary of Educational Affairs, "Working Paper on Public Higher Education Planning," Commonwealth of Massachusetts, Aug. 17, 1977. p. 9.
12. ibid., p. 10.
13. Michael S. Dukakis, Executive Budget Recommendations, House 1, Commonwealth of Massachusetts, Jan. 22, 1975, p. 1.
14. ibid., p. 2.
15. Chronicle of Higher Education, Oct. 25, 1977, p. 11.
16. BOSTON GLOBE, Aug. 7, 1978, p. 10.
17. Kevin Harrington, interview, Aug. 10, 1978.
18. Select Committee for the Study on Financial Problems of Private Institutions of Higher Education in the Commonwealth of Massachusetts, Financial Problems of Massachusetts Private Higher Education, Jan. 1970, p. 1-3.

19. Richard D. Pickett, Northampton Junior College, letter to Board of Higher Education, dated July 20, 1973.
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22. Commonwealth of Massachusetts, Acts, 1965 - Chap. 572, p. 342.
23. ibid., p. 342-343.
24. Special Commission Established to Make an Investigation and Study Relative to Improving and Extending Educational Facilities in the Commonwealth, Commonwealth of Massachusetts, Report, House No. 4300, June 1965, p. 170.
25. ibid.
26. Kevin Harrington, interview, Aug. 10, 1978.
27. ibid.
28. Thomas Wojkowski, interview, Nov. 3, 1977.
29. Academy for Education Development, Higher Education in Massachusetts: A New Look at Some Major Policy Issues, Washington, D.C., June 1973, pp. 6-7. Emphasis added.
30. Board of Higher Education, Commonwealth of Massachusetts, Board of Higher Education Budget Recommendations for Fiscal 1979, undated, p. 2.
31. Executive Office of the Secretary of Educational Affairs, Commonwealth of Massachusetts, undated publication, p. 2.
32. ibid.
33. ibid.
34. Robert Wood, interview, June 15, 1978.
35. House of Representatives, Commonwealth of Massachusetts, An Act to Reorganize the Board of Higher Education, House No. 619, 1977, pp. 3-4.
36. Michael S. Dukakis, cover letter to House No. 5956, April 7, 1977, p. 1.
37. House of Representatives, Commonwealth of Massachusetts, An Act to Improve Statewide Oversight, Coordination and Planning for Higher Education, House No. 5756, 1977, pp. 6-13.

38. Buckley, John R., Memorandum to "Presidents of Massachusetts Independent Institutions of Higher Education Participating in the Matching Scholarship Grants Program," June 8, 1978.
39. Harvard University Task Force on Massachusetts Higher Education Financing Higher Education in Massachusetts, Harvard University, Cambridge, Mass., June 1974, p. 10.
40. Select Committee for the Study on Financial Problems of Private Institutions of Higher Education in the Commonwealth of Massachusetts Financial Problems of Massachusetts Private Higher Education, pp. 4-5.
41. ibid., p. 6.
42. Academy for Educational Development, Higher Education in Massachusetts: A New Look at Some Major Policy Issues, Washington D.C., June 1973, p. 8.
43. Organization for Social and Technical Innovation, A Master Planning Process for Higher Education in Massachusetts: A Report to the Board of Higher Education, Boston, October 1973, p. 187.
44. ibid., p. vii.
45. Obviously, this limits the analysis to the group of traditional college-age students. However, in light of the facts that a) a large majority of those attending college fall within this range and b) the prophecies of doom for higher education which are so prevalent in the current literature address themselves to the changing demography of this age cohort, it seems reasonable to make this group the target of our analysis. (See, for example, Deitch, "Some Aspects of the Economics of American Higher Education," Chapter IV).
46. Task force on Massachusetts Higher Education, Financing Higher Education in Massachusetts Policies for the Near Future, Cambridge, Mass., 1974, pp. 9-33. See, especially, Tables I through IX.
47. For more information on current problems and possible solutions to the problem of the independent students, see The College Entrance Examination Board's study entitled "Who Is the Independent Student? A Study of the Status and Resources of Independent Students," October, 1974.
48. Again this does not give proper weight to the non-traditional student and academic setting. With reference to this specific issue of high school graduation see "Student Need and Demand for Postsecondary Education in Massachusetts: A Summary Report" by Frances Gast Jones (Boston: The Massachusetts Postsecondary Education Commission; April, 1978) page 50. There, Table 6-4 tells us that 6.6% of the "continuing education" cohort did not complete high school.

49. High school graduation is itself a measure of all three of these variables up to a point in time; certainly desire, ability and financial situation all determine whether or not a person graduates from high school. It is less clear to what extent high school graduation and college attendance are psychologically linked; that is, for example, to what extent a student has the desire to graduate from high school but not to go onto college. Related to this is the controversial question of whether or not higher education policy (e.g. financial aid) actually influences high school graduation, above and beyond its presumed effect upon college attendance rates. (See "Government and Higher Education: The Significant Issues in Their Context" by Carl Kaysen, p.3).
50. Please note that I am using the term "college" in a generic manner, referring to any institution of higher education. Also, I note apologetically that I refer to the generic person as he: no male chauvinism, only clarity, is intended.
51. cf. Christopher Jencks, et. al. Inequality: A Reassessment of Family and Schooling in America. New York, Harper and Row, 1972. Chapters 3-5 and Appendix A.
52. Task Force on Massachusetts Higher Education, page 29 from Board of Higher Education, Higher Education in the Boston Metropolitan Area, 1969. The emphases are mine.
53. "Student Financing of Postsecondary Education in Massachusetts," Final Draft of A Report Prepared by the College Board for the Massachusetts Board of Higher Education, p. 14. This survey, it should be noted, has been much criticized, especially for the use of an exceptionally skewed sample (those who took the PSAT/NMSQT exam). The emphases here are mine.
54. ibid., p. 8
55. ibid., p. 14.
56. The technical imperfection stems especially from measuring income within different ranges, as you can see from Table IV. The result is that percent figures, especially, become distorted, since in any case they have to add up to 100% (a simple example is that if you measured using two ranges which had 90% and 10% of the people in each, and in ten ranges which had 10% each, you would have very different lines, but conceivably identical actual distributions). However, these figures are similarly measured enough to avoid serious actual distortion, except at the far right-hand side of the distribution -- the wealthy. To remedy this I have shown two possibilities for how that line might actually look. The actual line probably lies somewhere in between.

57. As has been pointed out to me, since this study takes into account "all 1977 high school seniors who were identified . . . as being from Massachusetts and who registered to take the College Boards before March of their senior year," it ignores persistence of desire -- who was tenacious enough to want to take the SAT's twice?
58. "Student Financing of Postsecondary Education in Massachusetts," pages 12,14.
59. ibid., p. 13. For example, 45.5% of those going to a Massachusetts Community College reported that it was not their first or second choice while this was true of only 23.8% of those going to "any four-year private institution." This factors desire, though not financial resources, out of the picture. Certainly given the statistics cited in the text, ability is at least partly responsible for this.
60. "Student Need and Demand for Postsecondary Education in Massachusetts," p. 16.
61. The data appears in ibid., pp. 17-18 and is a composite of ATP reports.
62. There is, of course, a wealth of literature on the socioeconomic/ethnic biases of American standardized tests. We will have to leave aside this question in this paper and assume that if the SAT is in fact used, it is skewing participation -- whether by bias or by actual measure of ability.
63. "Student Financing of Postsecondary Education in Massachusetts," p. 14.
64. ibid., p. 9.
65. "Financing Higher Education in Massachusetts..," pp. 15-18.
66. Kenneth M. Deitch, "Pricing and Financial Aid in American Higher Education: Some Interactions," paper presented at conference on student aid policy of the Aspen Institute for Humanistic Studies, Project in Education for a Changing Society, Aspen, Colorado, July 24-27, 1978.
67. See College Scholarship Service of the College Entrance Examination Board, CSS Need Analysis: Theory and Computation Procedures, New York, 1976. See especially Table F.
68. This is problematic since the new formula derived by the U.S. Office of Education is used to determine Basic Educational Opportunity Grants (BEOG's) but can be used as a campus-based needs analysis as well. This formula is very different from the CSS guidelines.

The Sloan Commission has graphically displayed the differences between BEOG and CSS standards which result from the Middle Income Student Assistance Act. Suffice it to say that the differences are great enough to subvert any conception of need-based aid and objective needs analysis.

69. See article by James E. Nelson "Measuring Need vs. Meeting Need," The College Board Review, No. 94, Winter 1974-75, for a discussion of this problem. In an earlier article, "Are Parents Expected to Pay Too Much?" The College Board Review, No. 92, Summer 1974, Nelson alludes to this issue more obliquely, trying to tie parental willingness to pay for college education to the validity of CSS' standards.
70. CSS collects annual data on student expense budgets from every institution of higher education in the United States. In this paper we are referring to Suchar, Elizabeth W.; Ivens, Stephen H.; Jacobsen, Edmund C., Student Expenses at Postsecondary Institutions, 1977-78 (New York: College Entrance Examination Board) and the same publication from the following year (same authors and copyright information) to correct for missing data.
71. A more complete analysis of the theoretical problems of the Deitch model and empirical solution to those problems can be found in a Sloan Commission interoffice memorandum from Larry Lustberg to Rich Stafford and Ed Gruson, dated August 3, 1978.
72. The source of this statement is arithmetic done on the basis of data published in the Fact-File of The Chronicle of Higher Education, Volume XVII, Number 13, November 27, 1978, p. 5.
73. According to Graham Taylor, Director of the Massachusetts General Scholarship Program, 17% of the funds given out in that program are "lost" to other states.
74. Of course, the statistical technique is different when computing empirical lines and this accounts for part of the difference in the curves; using averages (means) rather than exacting standards forces one to make assumptions like the assumption of rectangular distribution. All of this data is unpublished data made available by the CEEB.
75. The report is entitled Financial Problems of Massachusetts Higher Education (1970), pp. vi and vii.
76. The Sloan Commission research staff has done some work which shows that this is in fact a common practice, and potentially severe problem. See Memorandum dated November 13, 1978 to Ken Deitch from Larry Lustberg and Linda Heasley.

77. The assumption of \$500 may not reflect what all colleges ask their students to contribute. The CSS recommends that one pay differentially based upon one's year in college. In Table 12 of CSS Need Analysis: Theory and Computation Procedures, the following is the suggested "national standard" :

<u>Year in School</u>	<u>Expected Summer Savings</u>
First	\$500
Second	600
Third	700
Fourth (or fifth undergraduate)	700
Graduate	700

However, in an analysis of "access," it was decided that the \$500 figure would be most relevant. It appears also to be the most widely used number by Massachusetts public and private institutions.

It is also interesting to note that summer earnings are "required" (they can, of course, be covered by parents' moneys, parents' or students' assets or even by loan) only of those who are eligible for financial aid. At the margin, one who is barely eligible for financial aid is required to give \$500 of his summer earnings while one who is not eligible for financial aid is not so required, except as individual families require it. That the expected contribution from savings remains the same is an important, and not altogether equitable, arrangement.

78. U.S. Department of Commerce, Bureau of the Census, Washington, D.C. Unpublished data, 1976.

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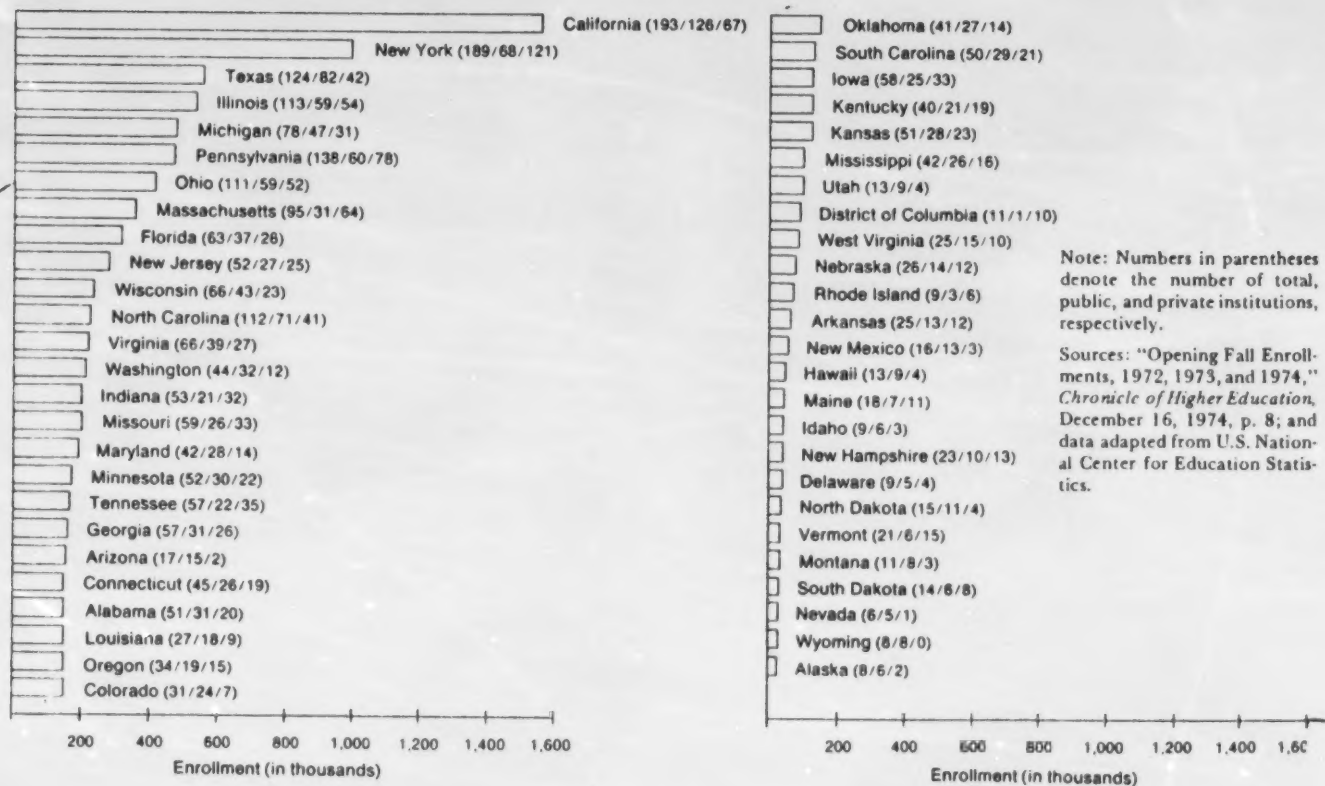
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APPENDICES

STATES RANKED BY TOTAL ENROLLMENT IN HIGHER EDUCATION, 1974,
WITH NUMBERS OF INSTITUTIONS BY CONTROL OF INSTITUTION



Source: Carnegie Foundation for the Advancement of Teaching, The States and Higher Education, Jossey-Bass Publishers, San Francisco, 1976

APPENDIX B

Enrollment in private institutions as a percentage of total enrollment in higher education, by state, 1976



Source: Carnegie Council on Policy Studies in Higher Education, The States and Private Higher Education, Jossey-Bass Publishers, San Francisco, 1977, pp. 10-11.

APPENDIX CMASSACHUSETTS PUBLIC HIGHER EDUCATION:
ORIGINS AND PRE-1960 DEVELOPMENT

Public higher education in Massachusetts prior to 1960 consisted of the University of Massachusetts, twelve state colleges and three technical institutes (Lowell, Bradford Durfee, and New Bedford).

The University of Massachusetts was founded in 1863 under provisions of the federal Morrill Land Grant Act as the Massachusetts Agricultural College. In 1931, it became the Massachusetts State College, and sixteen years later it was renamed the University of Massachusetts. Full-time enrollment figures for the institution show it having only minimal growth during the first half of the twentieth century. As indicated in Table A, its full-time fall enrollments in 1900 numbered only 147 and did not exceed 1000 until after 1930. Even as late as 1950, the University enrolled less than 3,600 full-time students.

The nation's first teachers college began in Massachusetts with the establishment of a system of "normal" schools. These schools were tuition-free and provided one and two year curricula in teacher education under the authority of the State Board of Education. The history of the system began in 1839 when the first two were founded in Lexington and Barre. During the remainder of the nineteenth century, ten additional colleges were founded including two specialized institutions: the Massachusetts College of Art and the Massachusetts Maritime Academy.

Although the Commonwealth was a forerunner in the establishment of teacher training institutions, enrollments in these colleges remained small until relatively recently. For example, in 1910 full-time enrollments among those institutions amounted to only 2,234. During the next three decades, this number grew by less than 1,000; and as late as 1950 they still enrolled fewer than 4,300 persons.

TABLE A

FULL-TIME FALL ENROLLMENT IN STATE INSTITUTIONS
OF HIGHER LEARNING IN MASSACHUSETTS, 1900-1950

	Enrollment by Decades from 1900 to 1950					
	1900	1910	1920	1930	1940	1950
University of Massachusetts	147	434	783	950	1,667	3,524
Technological Institutes	---	---	448	374	604	1,504
State Colleges	---	2,234	2,263	2,969	3,158	4,279
Community Colleges	---	---	---	---	---	---
TOTALS	147	2,668	3,494	4,293	5,429	9,307

Source: Commonwealth of Massachusetts, Report of the Special Commission Established to Make an Investigation and Study Relative to Improving and Extending Educational Facilities in the Commonwealth, Wright and Potter Printing Company, Legislative Printers, Boston, June 1965, p. 98.

The three technical colleges and institutes in the Commonwealth consisted of Lowell, established in 1897; Bradford Durfee, 1895; and New Bedford, also founded in 1895. These institutions were established as regional schools to provide manpower training in textile technology and related engineering fields. These institutions, although they would experience growth later as regional universities, were slow to develop on their own. As late as 1920, for example, they enrolled less than 500 full-time students, and even by 1950 provided services to only some 1,500 students.

Massachusetts' public community college system began in 1958. That year, the legislature created the Regional Board of Community Colleges for the purpose of assessing the Commonwealth's need for publicly supported two-year colleges. The first of these institutions, however, was not to become operational until after 1960. Since then, a total of 15 have been established to provide low cost technical and general education to state residents.

APPENDIX D

FALL ENROLLMENTS IN MASSACHUSETTS PRIVATE INSTITUTIONS¹
1972-1976

	1972	1973	1974	1975	1976
Universities	108,083	111,200	114,719	115,530	104,116
Four-year Colleges	48,719	50,371	50,734	52,349	52,057
Two-year Colleges	11,092	11,443	13,238	19,423	15,388
Professional and Specialized Institutions	17,269	18,640	19,954	21,699	24,571
TOTALS:	186,163	191,654	198,645	209,001	196,132

1. Enrollment figures represent student headcount numbers, not full-time equivalents.

Source: Massachusetts Postsecondary Education Commission, Student Need and Demand for Postsecondary Education in Massachusetts, April 1978.

APPENDIX E

COMPOSITION OF INSTITUTIONAL GROUPINGS USED IN THE STUDY

Group I - Two-Year Institutions

Aquinas Junior College of Business-Milton	* Forsyth School of Dental Hygiene
Aquinas Junior College of Business-Newton	Franklin Institute of Boston
Bay Path Junior College	* Garland Junior College
Becker Junior College	* Graham Junior College
* Bradford Junior College	Lasell Junior College
Dean Junior College	Leicester Junior College
Endicott Junior College	Mount Ida Junior College
Fisher Junior College	* Pine Manor Junior College
Wentworth Institute	Worcester Junior College

Group II - Specialized Colleges

Babson College	* Massachusetts College of Pharmacy
Bentley College	New England Conservatory of Music
Boston Conservatory of Music	Nichols College of Business
* Hampden College of Pharmacy	Administration
Massachusetts College of Optometry	Springfield College

Group III - Nonspecialized Colleges-
Lower Expenditures per Student

American International College	Hellenic College
Anna Maria College	Lesley College
Atlantic Union College	Merrimack College
* Cardinal Cushing College Incorporated	* Newton College of the Sacred Heart
College of Our Lady of the Elms	Regis College
Curry College	Stonehill College
Eastern Nazarene College	Suffolk University
Emerson College	Western New England College
Emmanuel College	Wheelock College
Gordon College	

Appendix E (continued)

Group IV - Nonspecialized Colleges -
Higher Expenditures per Student

Amherst College
Assumption College
College of the Holy Cross
Mount Holyoke College
Simmons College

Smith College
Wellesley College
Wheaton College
Williams College
Worcester Polytechnic Institute

Group V - Universities Except Harvard University and
Massachusetts Institute of Technology

Boston College
Boston University
Brandeis University

Clark University
Northeastern University
Tufts University

Group VI - Harvard University and
Massachusetts Institute of Technology

Harvard University

Massachusetts Institute of Technology

Source: Select Committee for the Study of Financial Problems of Private Higher Education in the Commonwealth of Massachusetts, Financial Problems of Massachusetts Private Higher Education, Jan. 1970, pp. vi-vii.

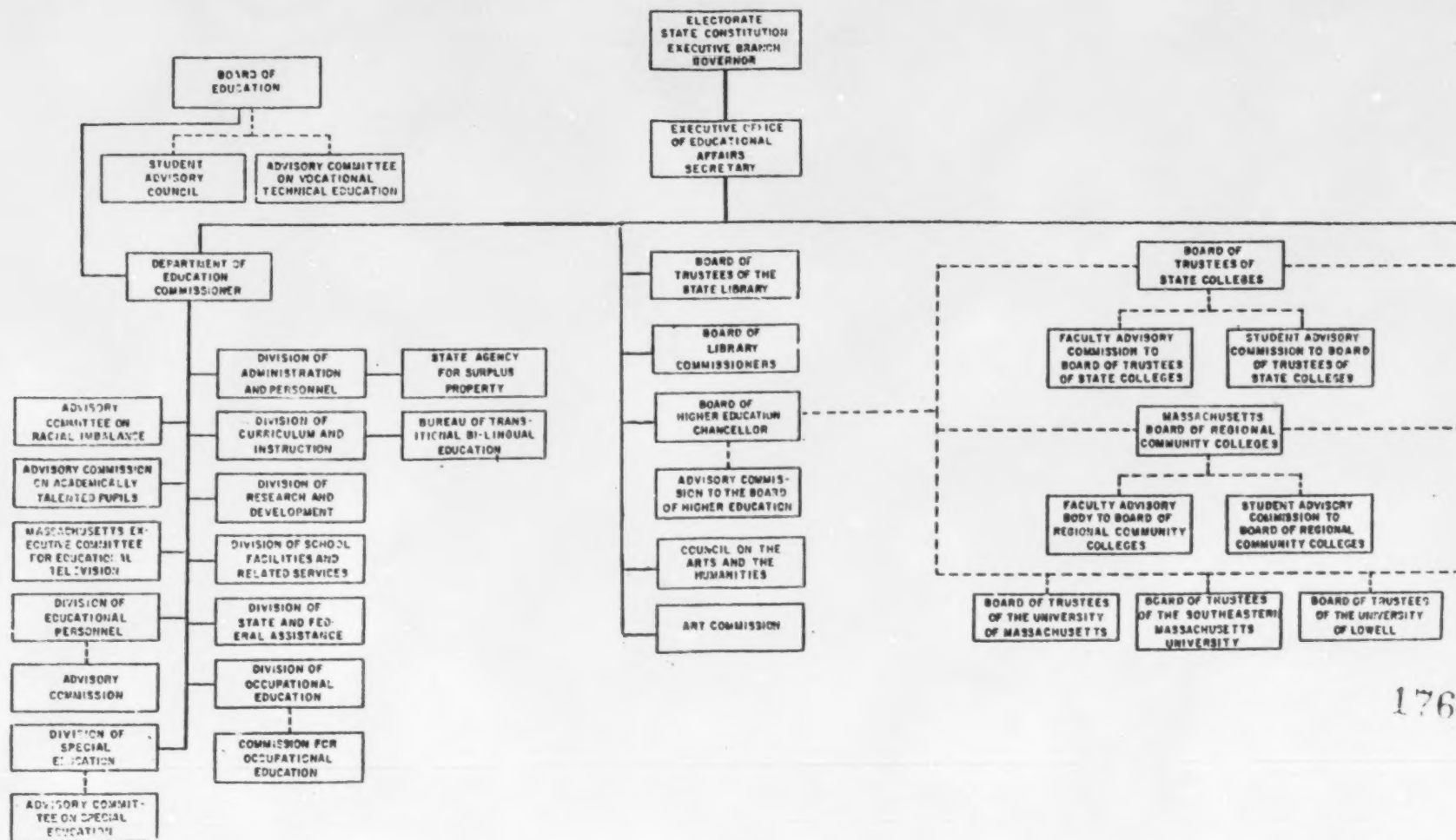
* Data from institution not included in 1977-78 compilation due to closing or data not reported.

APPENDIX FMASSACHUSETTS INSTITUTIONS OF HIGHER
EDUCATION CLOSED SINCE 1970

Year Closed	Institution
1970	Calvin Coolidge College
1972	Bryant-McIntosh College
	Cardinal Cushing College
1973	Northampton Junior College
	Stevens College
1974	Cambridge Junior College
	Oblate College and Seminary
1975	Newton College of the Sacred Heart
1976	Garland Junior College
	Newton Junior College (Municipal)
	Leicester Junior College

Source: Collegiate Authority, Board of Higher Education, Commonwealth of Massachusetts.

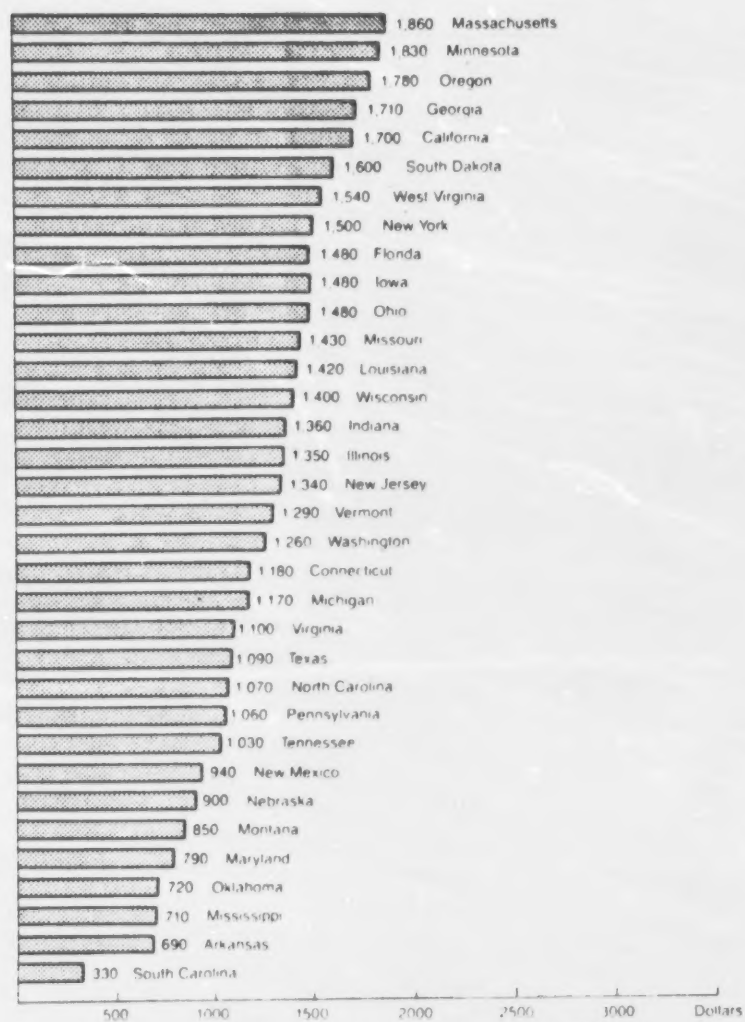
EDUCATIONAL AFFAIRS



Source: Office of the Secretary of Educational Affairs, Commonwealth of Massachusetts.

APPENDIX I

AVERAGE DIFFERENCE IN TUITION AND FEES:
PRIVATE COMPREHENSIVE INSTITUTIONS COMPARED WITH
PUBLIC COMPREHENSIVE INSTITUTIONS, ARRAYED IN
DESCENDING ORDER, 1973-74



Source: Carnegie Council on Policy Studies in Higher Education, The States and Private Higher Education, Jossey-Bass Publishers, San Francisco, 1977, p. 20.

APPENDIX J

ESTIMATED STATE STUDENT-AID PAYMENTS PER FULL-TIME
RESIDENT UNDERGRADUATE ENROLLED IN PRIVATE INSTITUTIONS
1975-76, BY STATE ARRAYED IN DESCENDING ORDER OF MAGNITUDE

<i>Payments per FTE</i>	<i>State</i>	<i>Payments per FTE</i>	<i>State</i>
\$1,710	Alaska ^a	\$100	Rhode Island ^b
710	Vermont ^{a,b,c}	90	Kentucky
680	Illinois	70	Florida
590	California ^d	70	Washington
560	Wisconsin ^a	50	Arkansas
540	Iowa	20	Oklahoma
490	South Carolina	20	Virginia
480	Kansas	20	North Dakota
440	New York	20	South Dakota ^b
420	Indiana	10	Louisiana
420	Georgia	10	Alabama
400	Michigan	10	Idaho
390	Pennsylvania ^b	6	Delaware
370	North Carolina	0	Arizona
300	Minnesota	0	Colorado
280	New Jersey ^{a,b}	0	Hawaii
240	West Virginia	0	Mississippi
190	Ohio	0	Montana
190	Texas ^a	0	Nebraska
180	Connecticut	0	Nevada
150	Missouri	0	New Hampshire
150	Maine	0	New Mexico
140	Maryland	0	Tennessee
130	Massachusetts ^b	0	Utah
110	Oregon	0	Wyoming

Note: Payments per FTE are approximations only and have been rounded. Undergraduate FTE enrollment for 1975-76 was multiplied by the percentage of undergraduates in private institutions who were state residents, on the basis of the most recent year for which data on migration of students were available, 1972-73 (see Table 21).

^a Data unavoidably include some payments to graduate students.

^b Data include estimated payments to state residents attending out-of-state institutions.

^c Data unavoidably include some payments to students in proprietary institutions.

^d Payments to graduate students, for which we have separate data, were excluded.

Sources: Carnegie Council survey; U.S. National Center for Education Statistics (HEGIS) data; Education Commission of the States (1976b).

Source: Carnegie Council on Policy Studies in Higher Education, The States and Private Higher Education, Jossey-Bass Publishers, San Francisco, 1977, p. 93.

APPENDIX K

DESCRIPTIONS OF STATE-SPONSORED STUDENT ASSISTANCE PROGRAMS

Massachusetts Board of Higher Education General Scholarships - A need-based grant program to assist full-time, undergraduate resident students in all degree programs at accredited institutions out-of-state and approved in-state institutions.

Massachusetts Nursing Scholarships - A need-based grant program for full-time resident nursing students in hospital diploma programs leading to an R.N.

Massachusetts Special Education Scholarships - A need-based grant program for full-time resident students majoring in special education--to teach handicapped children. Students must be enrolled in in-state or out-of-state four-year institutions.

Massachusetts Honor Scholarship - A competitive award program, based on examination, to the top four students in each state senatorial district who attend eligible institutions.

Massachusetts Dental Scholarship - A need-based grant program to assist resident dental students who are doctoral candidates in dental schools. Students may enroll in in-state or out-of-state dental graduate schools.

Massachusetts Medical Scholarship - A need-based grant program to assist resident medical (MD) students in medical schools. Student may enroll in in-state or out-of-state medical graduate schools.

Massachusetts Scholarship for Children of POW/MIA, Deceased Firemen, Policemen, and Correctional Officials - A tuition benefit grant at Massachusetts four-year and two-year public colleges for resident students whose parents are POWs/MIAs, or deceased firemen, policemen or correctional officials.

Consortium Scholarship Program - A need-based grant program to assist resident students in Massachusetts private colleges majoring in programs not available in public sector colleges.

Massachusetts Reimbursement for Higher Education for Dependents of Certain Veterans - A grant program for all students who are dependents of certain deceased veterans, and who are enrolled in public or private institutions.

Massachusetts Vietnam Veterans Program - A tuition-remission program for resident veterans enrolled in Massachusetts public four-year and two-year schools.

Source: Education Commission of the States, Profiles of State Student Aid Programs, p. D-1.

APPENDIX L

BASIC STATE PROGRAM INFORMATION

<u>Programs</u>	<u>Year</u>	<u>Number of Awards</u>	<u>Average Full-time Award Size</u>	<u>Total Dollars Awarded</u>	<u>Eligible Population</u>
<u>Need-Based Grants</u>					
Massachusetts Board of Higher Education General Scholarships	1970-71	6,295	\$560	\$ 3,500,000	Resident Undergraduates
	1975-76	20,276	600	12,109,925	
Massachusetts Nursing Scholar- ships	1970-71	241	300	72,250	Hospital Nursing Students
	1975-76	516	300	154,800	
Massachusetts Special Educa- tion Scholarships	1970-71	35	430	15,000	Students in Special Education
	1975-76	39	370	14,300	
Massachusetts Dental Scholarship	1970-71	185	690	126,600	Dental Students
	1975-76	136	900	122,400	
Massachusetts Medical Scholarship	1970-71	220	680	148,300	Medical (MD) Students
	1975-76	280	750	221,100	
Consortium Scholarship Program	1970-71	150	1,000	150,000	Students in Certain Programs
	1975-76	178	841	149,750	
Massachusetts Reimbursement for Higher Education of Dependents of Certain Deceased Veterans	1970-71	262	700	183,500	Dependents of Deceased Veterans
	1975-76	184	690	127,700	

Appendix L (cont.)

Non Need-Based

Massachusetts Honor Scholarship	1970-71	480	200	96,000	Resident Undergraduates
	1975-76	598	310	184,750	
Massachusetts Scholarship for Children of POWs/MIAs, Deceased Firemen, Policemen and Correctional Officers	1970-71	25	---	N.A.	Dependents of Veterans/POWs/MIAs and Law/Fire Officers
	1975-76	29	340	9,900	
Massachusetts Vietnam Veterans Program	1970-71	15,000 ¹	Tuition	0	Veterans
	1975-76	15,000 ¹	Tuition	0	

1. Estimated figure.

Source: Education Commission of the States, Profiles of State Student Aid Programs, p. D-2.

APPENDIX M

AWARD SIZE DETERMINATION CRITERIA FOR STATE PROGRAMS

<u>Programs</u>	<u>Maximum Award Size?</u>	<u>What Award Size Determination Method Is Used?</u>	<u>How is Award Priority Determined</u>	<u>Who Ultimately Determines Award Amount?</u>
<u>Need-Based Grants</u>				
Massachusetts Board of Higher Education General Scholarships	\$900	By Board of Higher Edu- cation, by type of insti- tution: (1) Private-\$900; (2) Mass. Public-\$300; (3) Non-Mass. Public-\$600.	From lowest parental contribu- tion, \$700 until funds run out. Renewal award limit higher than for new awards.	Board of Higher Edu- cation.
Massachusetts Nursing Scholarships	\$300	One set stipend by policy of Board of Higher Educa- tion.	From lowest parental contribution \$700 until funds run out. Renewal award limit higher than for new awards.	Board of Higher Education Education
Massachusetts Special Education Scholarships	\$500	Maximum by statute: Pri- vate-\$500; Public-\$300 (Policy of Board of Higher Education).	Lowest calculated parental contri- bution not eligible for General Scholarship.	State and Board of Higher Edu- cation.
Massachusetts Dental Scholarship	\$900	By Board of Higher Educa- tion, Private-\$900; Pub- lic-\$600.	Up from lowest parental contri- bution (\$700) and down from highest need, until funds are exhausted.	Board of Higher Edu- cation
Massachusetts Medical Scholarship	\$900	By Board of Higher Educa- tion, Private-\$900; Pub- lic-\$600	Up from lowest parental contri- bution (\$700) and down from highest need, until funds are exhausted.	Board of Higher Edu- cation.
Consortium Scholar- ship Program	\$1,000	By institution taking into account both necessary and preferential conditions.	Renewals first; then new recipi- ents. High need, commuter status and high total loans also considered.	Institution ¹

Source: See Appendix L.

APPENDIX N

AWARD SIZE DETERMINATION CRITERIA FOR MASSACHUSETTS STATE PROGRAMS

<u>Programs</u>	<u>Maximum Award Size?</u>	<u>What award size Determination Method Is Used?</u>	<u>How is Award Priority Determined?</u>	<u>Who Ultimately Determines Award Amount?</u>
Massachusetts Honor Scholarship	Tuition - \$500	By tuition levels set by four-year public colleges and universities	By verbal plus mathematical total score on SAT test by senatorial district.	Institutional tuition
Massachusetts Scholarship for Children of POWs/ MIAs, Deceased Firemen, Policemen and Correctional Officials	\$500	By tuition levels set by public colleges and uni- versities	None - entitlement. Proof: Department of Defense or Retirement Board Proof of Death	Institutional tuition
Massachusetts Vietnam Veterans Program	Tuition ²	By tuition levels set by public colleges and uni- versities	None - entitlement if veteran is eligible - has service cre- dited to Massachusetts	Institutional tuition
Massachusetts Reimbursement for Higher Education of Dependents of Cer- tain Deceased Vet- erans	\$750	Statute - Costs up to \$750	None - entitlement	State Board of Higher Edu- cation

1. Within prescribed limits of \$1,000 maximum and \$500 minimum set by the Board of Higher Education.
2. Currently \$500 undergraduates.

Source: See Appendix L.

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